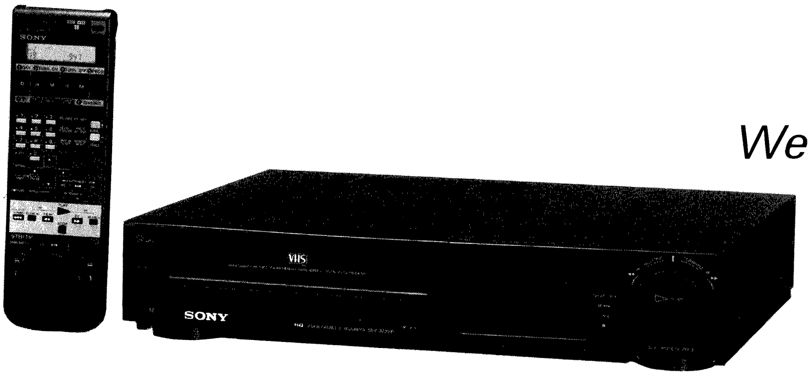
SLV-373/373UB/373VP
RMT-V373

SERVICE MANUAL

AEP Model
SLV-373

UK Model
SLV-373UB

West Germany Model
SLV-373VP



Remote commander RMT-V373 is available as a unit, but as individual parts the battery case lid of commander is only available.

Photo: SLV-373VP

For MECHANICAL ADJUSTMENTS, refer to the "VHS MECHANICAL ADJUSTMENT MANUAL II" (9-972-816-11)

- See Supplement-1 for Adjustments.

SPECIFICATIONS

System

Format	VHS PAL standard
Video recording system	Rotary two-head helical scanning FM system
Video signal	PAL colour (System B and G: SLV-373/373VP, System I: SLV-373UB/373EI) DDR SECAM colour (SLV-373VP) CCIR monochrome signals 625 lines
Tape speed	SP: 23.39 mm/sec. LP: 11.70 mm/sec.
Maximum recording/playback time	SP: 4 hours (with E-240) LP: 8 hours (with E-240)
Fast-froward/rewind time	Approx. 3 min. 20 sec. (with E-180)
High speed rewind time	Approx. 2 min. 20 sec. (with E-180)

Tuner Section

Tuner system (audio)	Intercarrier system
Channel coverage	SLV-373/373VP VHF channels E2 — E12 (A to H only for Italy) CATV channels S01 — S03 CATV channels S1 — S20 HYPER S21 — S41 UHF channels E21 — E69 SLV-373UB UHF channels B21 — B68 SLV-373EI VHF channels A — J UHF channels E21 — E69
RF output signal	SLV-373/373VP/373EI UHF channels E30 — E39 (adjustable) SLV-373UB UHF channels B30 — B39 (adjustable)
Aerial out	75-ohms asymmetrical aerial socket

—Continued on page 2—

VHS VIDEO CASSETTE RECORDER

VHS PAL

MICROFILM

SONY®

Inputs and Outputs

Video inputs	LINE 2: phono jacks EURO-AV: 21-pin (pin 20) 1 Vp-p, 75 ohms, unbalanced, sync negative
Audio inputs	LINE 2: phono jacks 47 kilohms, −7.5 dBs (0 dBs = 0.775 V rms) EURO-AV: 21-pin (pins 2 and 6) More than 10 kilohms, −4 dBs
Video output	EURO-AV: 21-pin (pin 19) 1 Vp-p, 75 ohms, unbalanced, sync negative
Audio output	EURO-AV: 21-pin (pins 1 and 3) Output impedance: less than 1 kilohm −4 dBs with 10 kilohms load
CONTROL S IN	Minijack (1)

Timer Section

Clock	Quartz locked
Time indication	24-hour cycle
Timer setting	Only for recording 8 programmes in one month at max.
Timer back-up	Built-in self-charging capacitor Back-up duration: Up to an hour at one time

General

Power requirements	240 V AC, 50 Hz (SLV-373UB) 220 V AC, 50 Hz (SLV-373/373VP/373EI)
Power consumption	25 W
Operating temperature	5°C to 40°C (41°F to 104°F)
Storage temperature	−20°C to 60°C (−4°F to 140°F)
Dimensions	430 × 87 × 358 mm (w/h/d) (17 × 3 3/8 × 14 1/4 inches)
Weight	5.7 kg (12 lb 9 oz)

Wireless Commander RMT-V373

Remote control system	Infrared control
Command mode	VTR 1/2/3
Power requirements	3 V DC, two IEC designation R6 batteries
Dimensions	75 × 45 × 235 mm (w/h/d) (3 × 1 3/4 × 9 1/4 inches)
Weight	220 g (8 oz) excluding batteries

Accessories Supplied

Wireless Remote Commander RMT-V373 with two R6 batteries	(1)
75-ohm coaxial cable	(1)
Screwdriver	(1)
AC power cord	(1)

Design and specifications are subject to change without notice.

Note
This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

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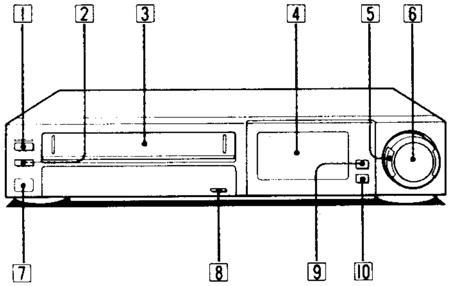
SECTION 1
GENERAL

This section is extracted from instraction manual.

Identifying the Operational Parts



Front

1 **ON/STANDBY switch and indicator**

2 **▲ EJECT button**
Press to eject the cassette. This button does not function during recording.

3 **Cassette compartment**

4 **Display window and function mode display**
See "Indications in the Display Window." (page 58)

5 **DUAL MODE SHUTTLE ring**

In the stop mode	Turn the ring clockwise (►►) to advance the tape rapidly, and counterclockwise (◄◄) to rewind the tape.
In the playback mode	Turn the ring clockwise (FORWARD) to advance and counterclockwise (REVERSE) to reverse the picture in various speeds including a still picture when the ring is released.

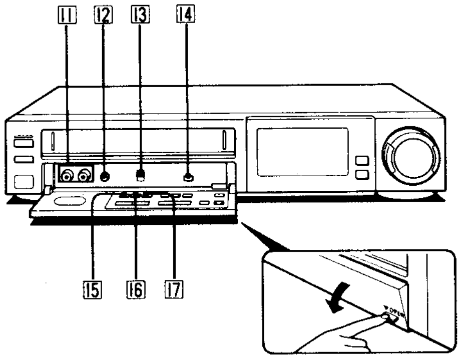
6 **▷ PLAY button**

7 **REMOTE Sensor**
Point the Commander here.

8 **▼ OPEN**
Press to open the front panel.

9 **II/▶◀ PAUSE/STILL button**
In the playback mode: Press to obtain a still picture.
In the recording mode: Press to pause.

10 **■ STOP button**



Front

11 **LINE IN 2 VIDEO/AUDIO jacks (phono type)**
Connect to the video/audio output jacks of another VTR or a video camea recorder.

12 **SHARPNESS SOFT/SHARP control**
Use to adjust the sharpness of the picture if necessary. Normally set this control at the center position.

13 **COMMAND MODE VTR 1/2/3 selector** (page 15)
Set to the same position as the COMMAND MODE switch on the Commander.

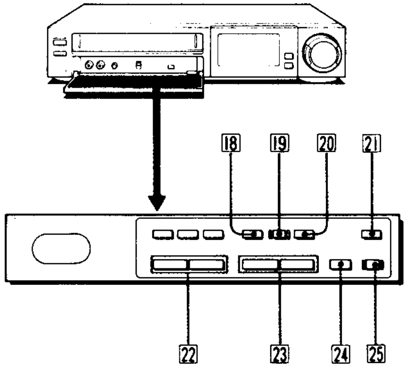
14 **VPS (Video Programme System) ON/OFF switch (SLV-373VP only)** (page 47)

15 **TV/VTR button**
Press and light the VTR indicator in the display window to view the playback of the VTR or a programme selected on the VTR. Press this button again to turn off the VTR indicator to view a programme selected on the TV. This button is effective only when the VTR is connected to the TV via EURO-AV.

16 **INPUT SELECT switch**
Press to select the signals to be recorded by the VTR. The selected mode will be indicated in the display window as follows:
TUNER: To record TV programmes.
LINE L1: To record the signals from equipment connected to the EURO-AV.
LINE L2: To record the signals from equipment connected to the LINE IN 2 jacks.

17 **REC MODE (SP/LP) button**
Press to select the recording tape speed SP or LP.

Identifying the Operational Parts



Front

18 **EDIT ON/OFF button** (page 55)
Set to ON during editing to obtain a high quality picture.

19 **TIMER REC ON/OFF button**
Press this button to enter the timer recording standby mode. Press it again to release the timer recording standby mode before changing or cancelling a timer recording or to operate the unit before a timer recording starts.

20 **QUICK TIMER button** (page 49)
Press to activate the quick timer recording function.

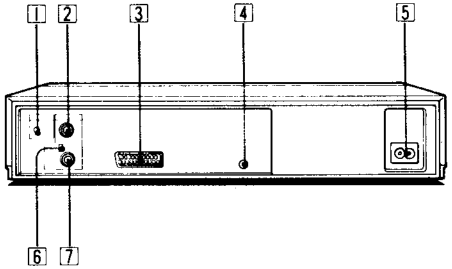
21 **◀◀◀ HIGH SPEED REWIND button**

22 **PROGRAM +/– buttons**
Press to select the programme positions.

23 **TRACKING NORMAL/SLOW and STILL ADJUST ▼/▲ buttons** (page 27)
Press to clear streaks if they appear on the screen in the normal and slow playback. (Manual tracking adjustment)
Press to reduce picture shaking in the still mode. (Still adjustment)

24 **TRACKING AUTO/MANUAL button** (page 27)
Press to reactivate the automatic tracking function after manual tracking adjustment.

25 **● REC (record) button** (page 33)



Rear

1 **RF CHANNEL screw (30 to 39)** (page 18)

2 **AERIAL OUT socket** (page 13)

3 **⇾EURO-AV (21-pin)** (page 13)

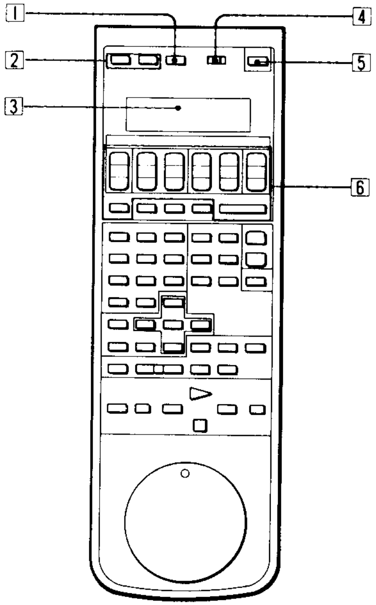
4 **CONTROL S IN jack (mini type)** (page 55)
Connect to the CONTROL S output jack of other SONY products for systematic operations such as synchronized editing.

5 **AC INPUT**
Connect the supplied AC power cord.

6 **DX/LOCAL switch**
Normally set to DX. If the TV signal is very strong, set it to LOCAL with the supplied screwdriver.

7 **AERIAL IN socket** (page 13)

Identifying the Operational Parts



Remote Commander RMT-V373

- The buttons on the Commander with the same name or mark as those on the unit have the same function.
- The buttons with a red dot can be used to remotely control Sony TVs with the ▣ mark when the TV/VTR remote control selector is set to TV.
  However, the TV/VTR button and/or the – / – – (10's digit) button cannot operate certain Sony's TVs.

1 **TIMER REC (ON/OFF) button**

2 **TIMER REC CHECK/CLEAR buttons**
(page 43)
Press to check, correct, or clear the tiemr settings.

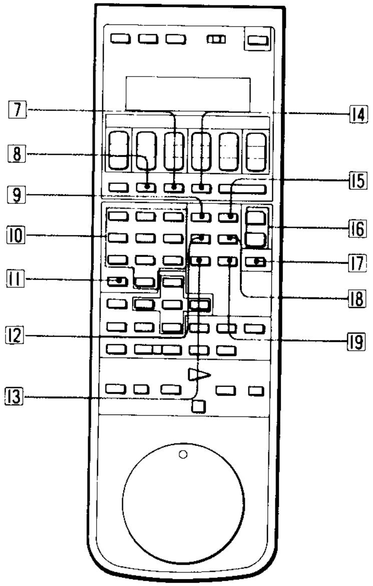
3 **Liquid-crystal display**

4 **TV / VTR remote control selector**
(page 15)
Set to VTR to control this VTR and set to TV to control the TV.

5 **⏻ (on/standby) button**
To turn on the TV from the standby mode, press one of the programme position number buttons.

6 **Timer recording/clock set buttons**
(page 16, 39)
- ● TIMER SET
- ● DAY
- ● TURN ON time
- ● TURN OFF time
- ● PROG (programme position) + / – *
- ● TRANSMIT

* You can use the PROG + / – buttons to select the programme positions during VTR or TV operation as well as in the timer setting procedure.



7 **MEMORY button** (page 46)

8 **CLOCK SET (SET/START) button**
(page 16)

9 **REC MODE select button** (page 33)

10 **Programme position number buttons**
Press to select the programme position directly.

11 **– / – – (10's digit) button**
Press to select a programme number over 9. To select 23, press – / – –, then 2 and 3.

12 **DATA SCREEN button** (page 30)

13 **TIMER ON SCREEN button**
Press to display the timer settings.

14 **COMMAND MODE button** (page 15)

15 **TV/VTR button** (page 35)

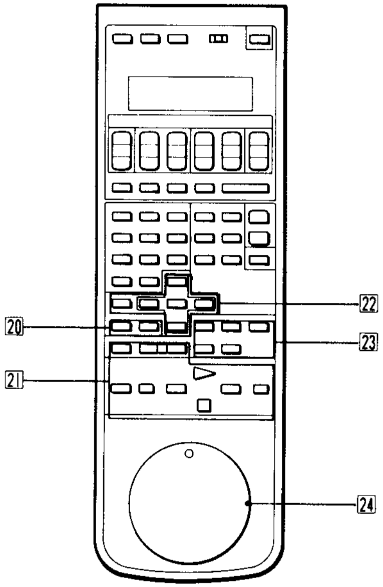
16 **VOL (TV volume) + / – buttons**
Press to control the volume of the TV. Effective only for Sony TVs with the ▣ mark.

17 **INDEX button** (page 52, 53, 54)

18 **INPUT SELECT button**
Press to select the source to be recorded. The selected input mode indicator will appear in the display window.

19 **COUNTER RESET button** (page 36)

Identifying the Operational Parts



20 **INDEX MARK and ERASE buttons** (page 51, 54)

21 **Tape transport buttons** (page 26, 28)
❚❚ PAUSE
● REC (recording) buttons
▷ PLAY
◀◀◀ HIGH SPEED REWIND
(▶▶)/(◀◀) SEARCH (reverse/forward)
◀◀ REW (rewind)
▶▶ FF (fast-forward)
■ STOP

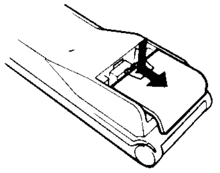
22 **Menu operation buttons**
Press MENU to display or erase the main MENU. Press EXECUTE to store the selected parameters. Press ▲/▼/◀/▶ to move the cursor.

23 **Playback direction set, frame-by-frame, still and SLOW +/− buttons** (page 28)
Press ▶◀ for a still picture.
Press < ◀❚❚/❚❚▶ > to select the direction for frame-by-frame picture.
Press < ◀❚❚/❚❚▶ > to select the direction for any playback mode.
Press ❚▶ SLOW +/− for slow playback between 1/5 to 1/30 times normal speed. Press + or − to change the playback speed.

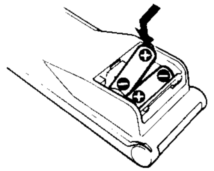
24 **SWING SHUTTLE dial** (page 29)
Turn and hold it at the position where the desired playback speed is obtained. You can select slow (1/5), normal (1), double (× 2) or continuous scan speed ((▶▶) or (◀◀)) from any playback mode. Turn the dial clockwise for forward playback, or counterclockwise for reverse playback.
When the dial is released, it will return to the still picture position automatically. To resume normal playback, press ▷.

Remote Control Operation

1



2



Preparing the Commander

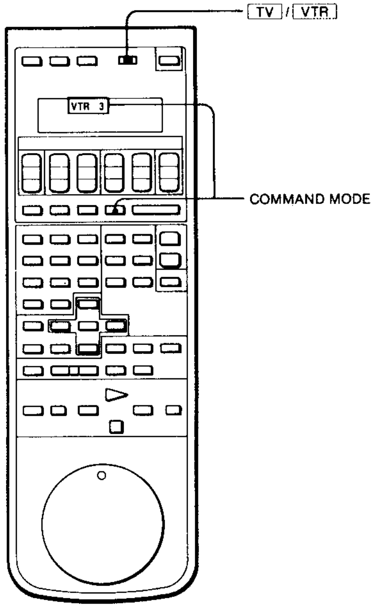
■ Battery insertion

1 Slide and remove the cover.

2 Insert two R6 (size AA) batteries with polarity positioned correctly.

3 Close the cover. Set the date and clock referring to the "Date and Clock Setting."

Note on batteries
With normal operation, batteries will last for about six months. However, if the Commander will not be used for a long period, remove the batteries to avoid possible damage from battery leakage.


TV / VTR
VTR 3
COMMAND MODE

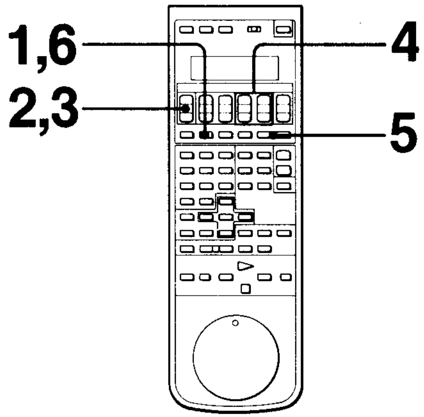
Command Mode Setting

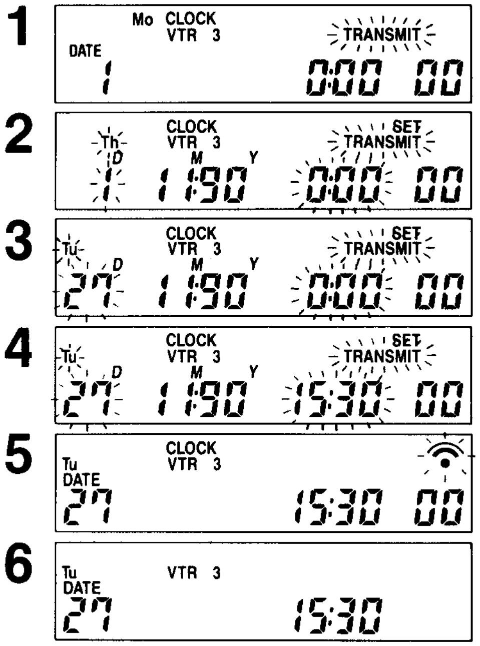
Set the COMMAND MODE 1/2/3 selector on the unit to the same number displayed in the LCD display. To change the setting on the Commander, press COMMAND MODE repeatedly. Then, set the TV / VTR remote control selector to VTR.

Remotely Controlling Other Sony Equipment

- **Controlling another VTR equipped with a command mode selector**
  Set different command modes for this VTR (VTR 3, for instance) and the other VTR (VTR 1). Select VTR 1 on the Commander to control the other VTR and VTR 3 to control this VTR.
- **Controlling equipment without a command mode selector**
  Change the setting on the Commander as follows to control each type of VTR.
  VTR 1: Sony Betamax infrared remote control VTRs
  VTR 2: Sony 8 mm format VTRs
  VTR 3: Sony VHS format VTRs

Date and Clock Setting




1
Mo CLOCK
VTR 3
TRANSMIT
DATE
1
0:00 00
2
Th
CLOCK
VTR 3
SET
TRANSMIT
D M Y
1 1:90
0:00 00
3
Tu
CLOCK
VTR 3
SET
TRANSMIT
D M Y
27 1 1:90
0:00 00
4
Tu
CLOCK
VTR 3
SET
TRANSMIT
D M Y
27 1 1:90
15:30 00
5
Tu
CLOCK
VTR 3
DATE
27
15:30 00
6
Tu
VTR 3
DATE
27
15:30

Before You Begin

The time and date between the years 1990 and 2005 can be set with the Commander.

Operation

Example: To set to 15:30, Tuesday, November 27, 1990.

1 **Press CLOCK SET.**

2 **Keep pressing the D (date) button until 11 M 90 Y is displayed.**
The date will be incremented slowly up to 30 days ahead and then the month will be incremented.

3 **Press the + side or – side of the D (date) button until 27 D is displayed.**
The day of the week appears automatically.

4 **Press the H (hour) and M (minute) buttons under TURN OFF to set the current time.**

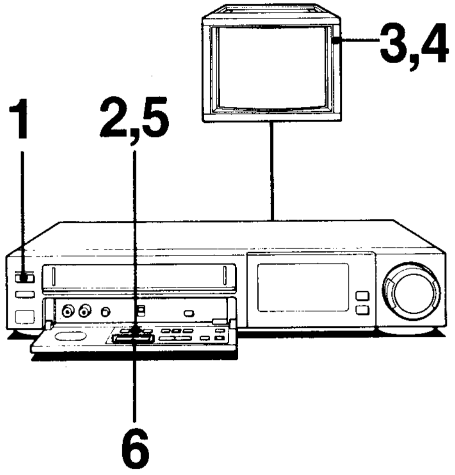
5 **Point the Commander at the VTR and press TRANSMIT.**
A beep sound confirms that the date and clock setting is registered in the VTR as well.

6 **Check the display window on the unit and press CLOCK SET.**

When 0:00 is blinking on the unit
Any time power is interrupted for more than an hour, you will see 0:00 blinking when power is restored. You will have to re-set the date and clock again.

When a short beep sounds repeatedly
The VTR is in the timer recording or quick timer recording modes or standby mode for timer recording and the setting cannot be transmitted.

Adjusting the TV



Before You Begin

If you have connected your VTR and TV using only the aerial sockets, one of the television programme positions must be adjusted to receive the VTR's playback signal. If TV-VTR connection is made via the EURO-AV, skip this step.

Operation

1 **Make connections referring to "Connections" and press ON/STANDBY.**

2 **Press INPUT SELECT to light LINE L2 in the display window.**
Do not connect any equipment to the LINE IN 2 VIDEO jack.

3 **Turn on the TV and select a programme position that is not used to receive a TV station.**

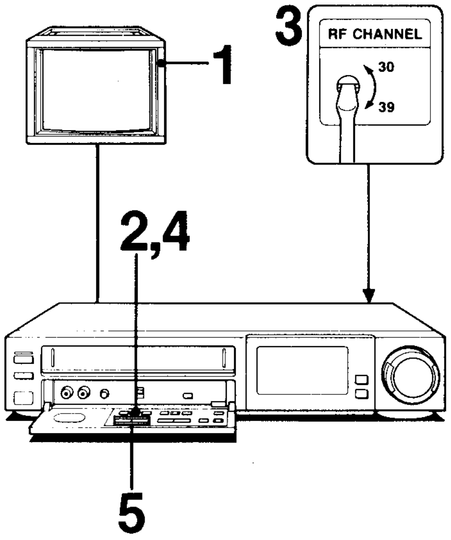
4 **Tune the TV so that a blue screen with tape counter and tape speed indication is clearly displayed on the TV screen.**

5 **Press INPUT SELECT to light TUNER in the display window.**

6 **Press the PROGRAM +/– on the VTR and check that the screen changes to a different programme.**

Now your TV is tuned to receive the VTR's playback picture. Whenever playing back a tape, select the programme position you chose in step 3.
If you are not sure how to tune your TV, refer to the TV's instruction manual or consult your dealer.

Adjusting the TV



When the Playback Picture is not Free of Disturbance

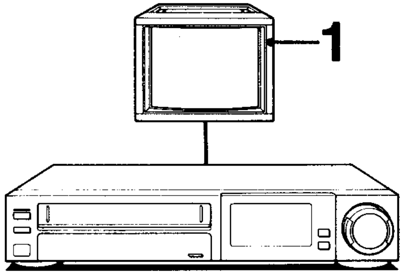
1 **Select a programme position on the TV between UHF channels 30 and 39, so that the TV shows no picture and a steady rustling sound or no sound is heard.**

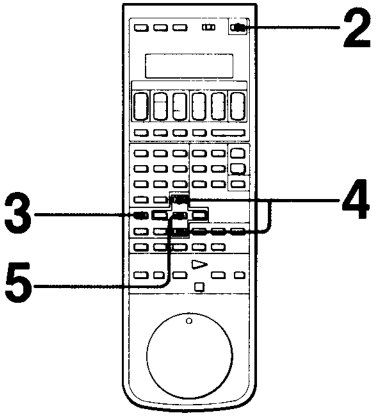
2 **Press INPUT SELECT to light LINE L2 in the display window.**
Do not connect any equipment to the LINE IN 2 VIDEO jack.

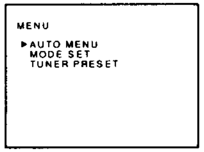
3 **Turn the RF CHANNEL screw with the supplied screwdriver so that a blue screen with tape counter and tape speed indication is clearly displayed on the TV screen.**

4 **Press INPUT SELECT to light TUNER in the display window.**

5 **Press the PROGRAM +/– on the VTR and check that the screen changes to a different programme.**







This VTR is equipped with a menu display function. Menu display enables you to perform certain operations which are displayed on the TV or the monitor.

First display the main MENU, and select the item to be operated or preset.

How to Display the main MENU

■Before you begin
Check the connections between the VTR and the TV.

■Operation

1 **Turn on the TV.**
Set to the programme position for the VTR if VTR-TV connection is made via the aerial sockets. Select VTR input if VTR-TV connection is made via the EURO-AV.

2 **Press ⏻.**

3 **Press MENU.**
The main MENU will appear on the screen.

4 **Move cursor to the desired menu by ▲ or ▼.**

5 **Press EXECUTE.**
The selected menu will appear on the screen.

To erase the main MENU display
Press MENU again.

To display other menu displays
1 Press MENU to erase the present display.
2 Press MENU again to display main MENU.
3 Move cursor to the desired menu.
4 Press EXECUTE.

Details of Each Menu

Here is a list of the menus in the main MENU. For details, refer to the sections indicated.

■AUTO MENU
Use to select an automatic tape operation. See "Assigning a Desired Operation Mode" (page 31).

■MODE SET
Use to select the following mode settings:

TIMER REC-REW ON/OFF
(See "Timer Activated recording" on page 44)

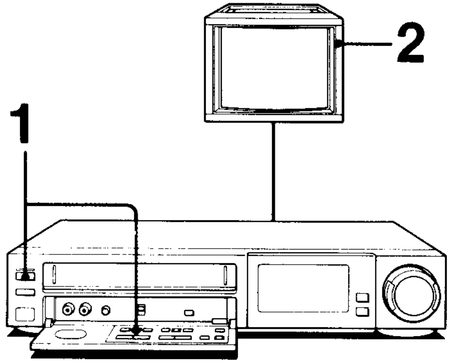
BUZZER ON/OFF
(See "Timer Activated Recording" on page 41)

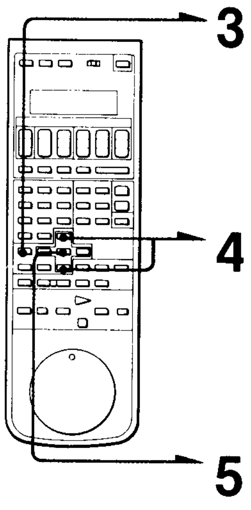
DIMMER ON/OFF
Select ON to dim out the indications in the display window.

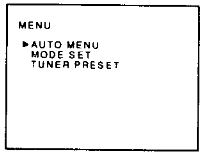
BACK COLOUR BL/GR/PK
Select your favourite back colour of the on-screen display from BL (blue), GR (green) and PK (pink).
Back colour is set to BL at the time of shipment.

■TUNER PRESET
Use to preset the active channels in your area. See "Presetting the Active Channels" (page 21).

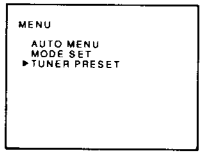
Note
The position of the cursor is retained as long as the power cord is connected.



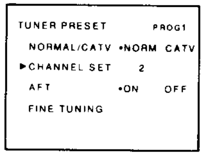




```
MENU
▶AUTO MENU
 MODE SET
 TUNER PRESET
```



```
MENU
 AUTO MENU
 MODE SET
▶TUNER PRESET
```



```
TUNER PRESET          PROG1
 NORMAL/CATV   •NORM  CATV
▶CHANNEL SET     2
 AFT           •ON    OFF
 FINE TUNING
```

Before You Begin

- •This VTR is capable of receiving VHF channels E2-E12, UHF channels E21-E69, and cable TV channels S1-S41 and S01-S03.
- •The receivable channels are governed by the TV broadcasting system in your area.
- •Up to 60 channels can be allocated to any desired programme position.

To Call Up the TUNER PRESET Menu

1 **Turn on the VTR and press INPUT SELECT to light the TUNER indicator and the programme position number in the display window.**

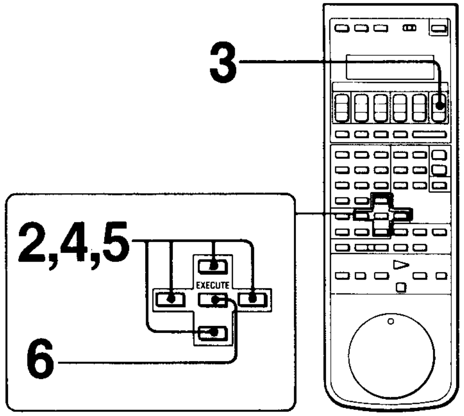
2 **Turn on the TV.**
Set to the programme position for the VTR if VTR-TV connection is made via the aerial sockets. Select VTR input if VTR-TV connection is made via the EURO-AV.

3 **Press MENU with the VTR in the stop mode.**
The main MENU appears.

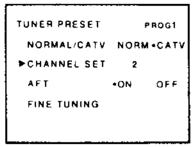
4 **Move cursor with ▲ or ▼ to TUNER PRESET.**

5 **Press EXECUTE.**
The TUNER PRESET menu appears.

Note for the users of SLV-373UB
The TUNER PRESET menu of the SLV-373UB does not have the NORMAL/CATV selection as illustrated.

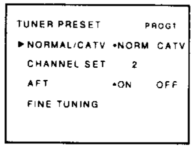


1



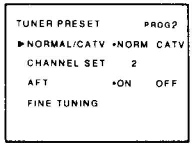
```
TUNER PRESET          PROG1
 NORMAL/CATV   NORM •CATV
▶CHANNEL SET     2
 AFT           •ON    OFF
 FINE TUNING
```

2



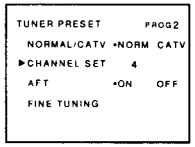
```
TUNER PRESET          PROG1
▶NORMAL/CATV   •NORM  CATV
 CHANNEL SET     2
 AFT           •ON    OFF
 FINE TUNING
```

3



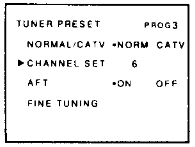
```
TUNER PRESET          PROG2
▶NORMAL/CATV   •NORM  CATV
 CHANNEL SET     2
 AFT           •ON    OFF
 FINE TUNING
```

4



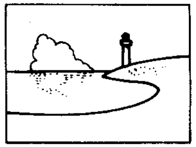
```
TUNER PRESET          PROG2
 NORMAL/CATV   •NORM  CATV
▶CHANNEL SET     4
 AFT           •ON    OFF
 FINE TUNING
```

5



```
TUNER PRESET          PROG3
 NORMAL/CATV   •NORM  CATV
▶CHANNEL SET     6
 AFT           •ON    OFF
 FINE TUNING
```

6



Tuning a Desired Channel

1 **Call up the TUNER PRESET menu.**

2 **Move cursor to NORMAL/CATV with ▲ and select NORM with ◀ or ▶. (For SLV-373UB, skip this step.)**
To tune-in CATV channels first, select CATV.

3 **Select the desired programme position by pressing PROG +/– on the Commander or PROGRAM +/– on the unit.**

4 **Move cursor to CHANNEL SET with ▲ or ▼ and press ◀ or ▶.**
The channel number automatically increases with ▶ and decreases with ◀. The number stops changing when the first channel received in your area is detected and the screen returns to the blue background 5 seconds after.

5 **To allocate a channel to the next programme position, repeat steps 2 to 4.**

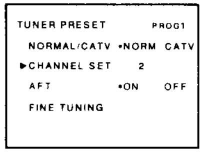
6 **Press EXECUTE to store the allocated channels and return to original screen.**

Channel scanning on your VTR

- •When ▶ is pressed in steps 4 and 5, the channels are scanned in the following order. When ◀ is pressed the scanning order is reversed.
  VHF (E2-E12) → UHF (E21-E69) → CATV (S1-S20) → HYPER BAND (S21-S41) → CATV (S01-S03).
- •The SLV-373UB only scans UHF channels B21 to B68.
- •In Italy, channel numbers 13 to 20 correspond to channels A to H.

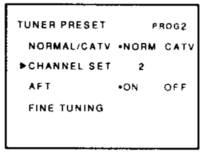
Presetting the Active Channels

1



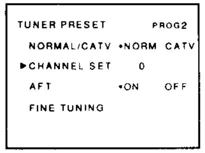
```
TUNER PRESET          PROG1
 NORMAL/CATV  •NORM  CATV
►CHANNEL SET    2
 AFT           •ON    OFF
 FINE TUNING
```

2



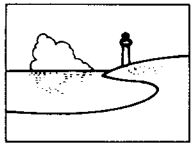
```
TUNER PRESET          PROG2
 NORMAL/CATV  •NORM  CATV
►CHANNEL SET    2
 AFT           •ON    OFF
 FINE TUNING
```

3



```
TUNER PRESET          PROG2
 NORMAL/CATV  •NORM  CATV
►CHANNEL SET    0
 AFT           •ON    OFF
 FINE TUNING
```

5



Erasing Unwanted Programme Positions

The VTR can be preset so that only the desired programme positions will appear when you press PROG +/– or PROGRAM +/–.

1 Call up the TUNER PRESET menu.

2 Press PROG +/– on the Commander or PROGRAM +/– on the unit to call up the unused programme position.

3 Press 0 twice or keep pressing ◄ or ► until 0 is displayed.

4 Repeat steps 2 and 3 to erase other programme positions.

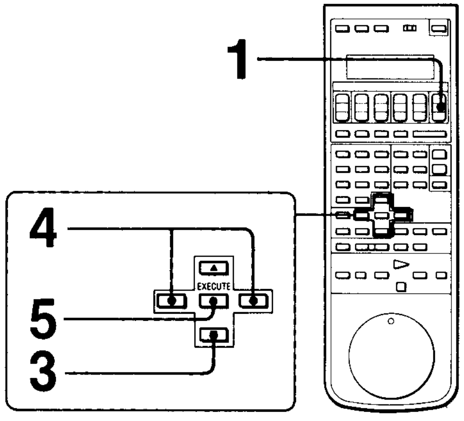
5 Press EXECUTE.

■ To enter the erased programme positions again

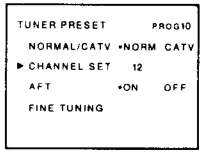
Follow the operations in "Tuning a Desired Channel."

To Allocate the Channels Directly

After step **3** in "Tuning a Desired Channel," move cursor to CHANNEL SET.
Enter the desired programme numbers using the programme position number buttons. To enter one's digits, press 0 and then the desired number. To enter two digit numbers, press the ten's digit number and then the one's digit number.

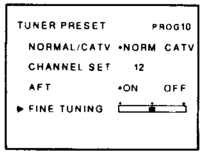


2



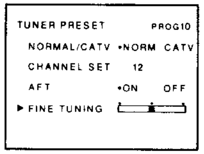
```
TUNER PRESET          PROG10
 NORMAL/CATV  •NORM  CATV
► CHANNEL SET   12
 AFT           •ON    OFF
 FINE TUNING
```

3



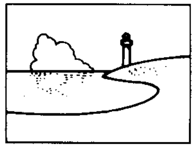
```
TUNER PRESET          PROG10
 NORMAL/CATV  •NORM  CATV
 CHANNEL SET    12
 AFT           •ON    OFF
► FINE TUNING
```

4



```
TUNER PRESET          PROG10
 NORMAL/CATV  •NORM  CATV
 CHANNEL SET    12
 AFT           •ON    OFF
► FINE TUNING
```

5



Manually Fine-tuning a Weak Station

Normally the AFT (Automatic Fine Tuning) function fine-tunes the picture with the AFT in the TUNER PRESET menu set to ON. (The AFT indicator lights in the display window.) However, when the programme received on the VTR is distorted due to signal interference, manual fine tuning may solve the problem.

1 Select the distorted programme position by pressing PROG +/– on the Commander or PROGRAM +/– on the unit.

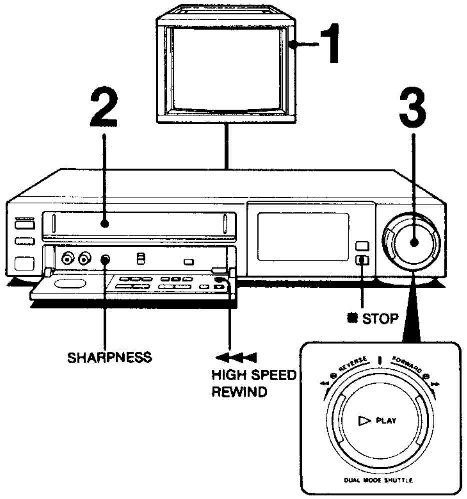
2 Call up the TUNER PRESET menu.

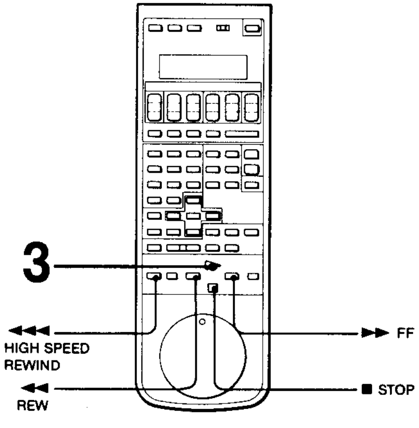
3 Move cursor to FINE TUNING.
The fine tuning meter appears.

4 Press ◄ or ► to obtain the best picture.
When ◄ or ► is pressed, the dot will move to AFT OFF automatically and the AFT indicator in the display window will be turned off.

5 Press EXECUTE to store that position and return to the original screen.

Playback





Playing a Tape

1 Turn on the TV and select the programme position for the VTR.
If VTR-TV connection is made via EURO-AV, select the input for the VTR.

2 Insert a cassette.
The VTR will be turned on. If your cassette has its safety tab removed, playback starts automatically.

3 Press ▷.
Playback starts.
The VTR automatically rewinds the tape when it reaches the end.

To stop playback
Press ■ STOP.

To advance the tape rapidly
Turn the DUAL MODE SHUTTLE ring clockwise (▶▶), or press ▶▶ FF on the Commander during stop mode.

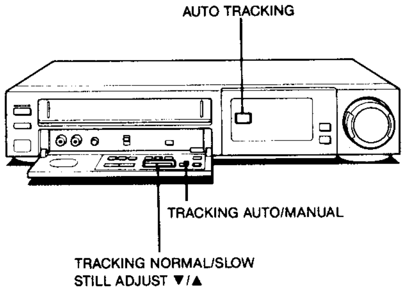
To rewind the tape
Turn the DUAL MODE SHUTTLE ring counterclockwise (◀◀), or press ◀◀ REW on the Commander during stop mode.

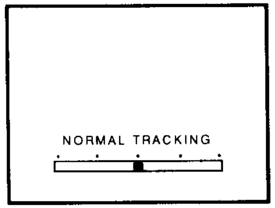
To rewind the tape at high speed
Press ◀◀◀ HIGH SPEED REWIND.

To get a sharper picture
Turn the SHARPNESS control toward SHARP.

To get a softer picture
Turn the SHARPNESS control toward SOFT.

When the tape is played back to the end
The tape will be automatically rewound to the beginning (auto rewind). The power will remain on.





Picture Adjustments

■ Auto tracking function
The tracking condition is automatically adjusted on this VTR. The AUTO TRACKING indicator blinks while the VTR is searching for the best tracking condition and lights when maximum playback picture is obtained. The automatic tracking control is activated in the following conditions:

- when the cassette is inserted and played back.
- when the recording mode on the playback tape is switched between SP and LP.
- when the picture is distorted by scratches etc. on the tape.
- when the AUTO TRACKING indicator is turned on by pressing TRACKING AUTO/MANUAL after the picture is adjusted manually. (See below.)

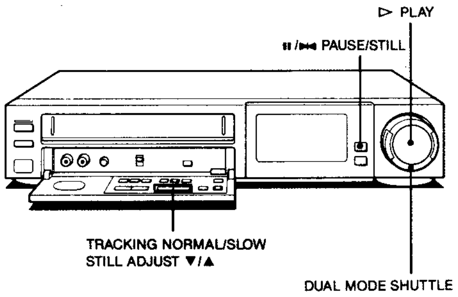
■ Manual adjustment during normal playback
If streaks or snow appear, adjust the picture using the TRACKING NORMAL/SLOW and STILL ADJUST ▼/▲.

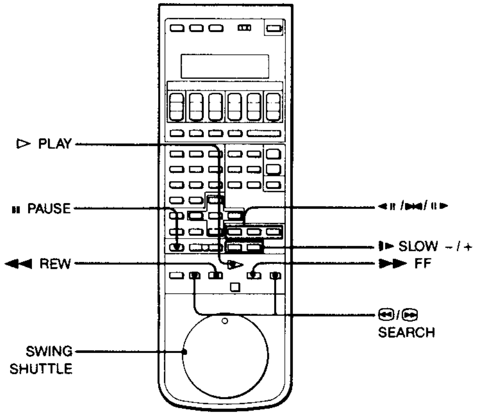
Press either ▼ or ▲ to obtain the best possible picture.
The tracking meter will appear on the TV screen and the AUTO TRACKING indicator will be turned off.

Notes on Automatic Tracking

- When the manual adjustment proves unsatisfactory, press both of the TRACKING NORMAL/SLOW and STILL ADJUST ▼/▲. The tracking condition will return to the center position.
- Tracking adjustment may not be possible when the recording condition of the tape is very poor.

Playback





Various Playback Modes

■To obtain a still picture
During playback mode press ❚❚/▶◀ PAUSE/STILL on the unit or ❚❚ PAUSE or ▶◀ on the Commander. To resume normal playback, press ▷ PLAY, ❚❚/▶◀ PAUSE/STILL, or ❚❚ PAUSE. When the pause mode lasts for more than 5 minutes, the unit will re-enter the playback mode automatically.

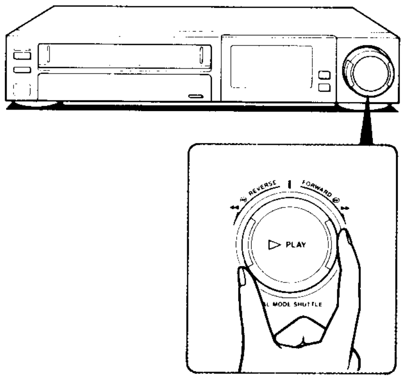
■To search for a particular scene — Picture search
During playback mode, press ◀◀ REW or ▶▶ FF.
While the button is pressed, a high speed picture without sound will appear on the TV screen. When the button is released, the unit will return to the previous mode.

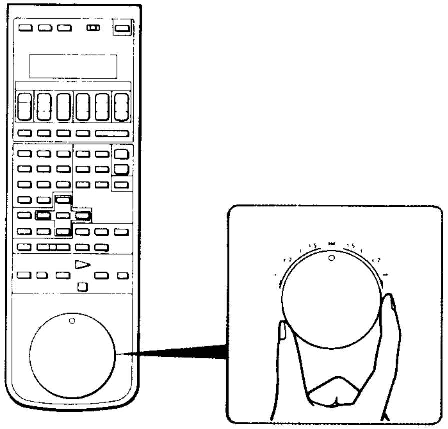
■To watch the picture during fast-forward or rewind mode — Locked picture search
During the playback mode, press ⏪ SEARCH or ⏩ SEARCH on the Commander. A high speed picture in forward or reverse will appear on the screen even when the button is released. To resume normal playback, press ▷ PLAY.

■To watch slow motion playback
During plabyack or still mode, press ❚▶ SLOW on the Commander. Change the slow motion speed with the + or − buttons. Press + to increase the playback speed, and − to decrease the playback speed.

■To see the picture momentarily while the unit is in the fast-forward or rewind mode without picture on the TV screen
During fast-forward, turn the DUAL MODE SHUTTLE ring clockwise (▶▶) or press ▶▶ FF on the Commander. During rewind, turn the DUAL MODE SHUTTLE ring counterclockwise (◀◀) or press ◀◀ REW on the Commander. The high speed playback picture can be seen as long as the ring is held in that position, or the button is pressed. Release the ring or button to return to the previous mode.

■To watch a frame-by-frame picture
During still mode, press ❚❚▶ to advance the picture one frame. Press ◀❚❚ to reverse the picture one frame. Each press of ◀❚❚ / ❚❚▶ will move the picture one frame. Press ▷ PLAY to resume normal playback.





■To watch reverse direction playback, and slow picture
During forward playback of the desired mode, press < on the Commander. Press ▷ PLAY or > to resume forward playback.

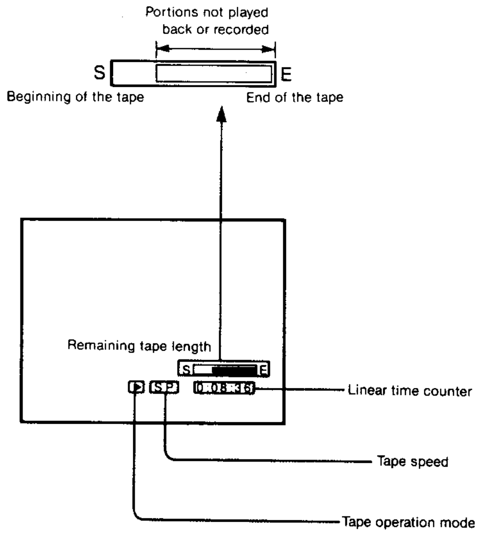
To eliminate streaks or noise bands during slow motion play
Adjust the picture with TRACKING NORMAL/SLOW and STILL ADJUST ▼/▲ inside the front panel. The picture can be adjusted easily in faster speed playback.

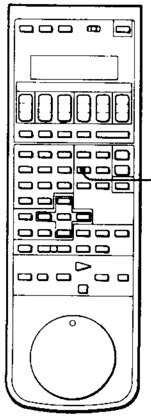
To eliminate the bands on the top or bottom of the screen in still mode
Change to the slow motion play mode and adjust the picture with TRACKING NORMAL/SLOW and STILL ADJUST ▼/▲.

To eliminate picture shaking during still mode
Adjust the picture with TRACKING NORMAL/SLOW and STILL ADJUST ▼/▲ inside the front panel.

Notes on picture search
The picture may turn to a monochrome picture during picture search when playing back tapes recorded in LP mode depending upon the condition of the connected TV.

■To enjoy various playback modes by the DUAL MODE SHUTTLE ring or the SWING SHUTTLE dial
Various playback modes as illustrated can be selected with DUAL MODE SHUTTLE ring on the unit or the SWING SHUTTLE dial on the Commander from any playback mode. The same speed is available in the reverse direction.
Turn the ring or the dial and hold it at the position where the desired playback speed is obtained.
When you release the ring or the dial, the picture will freeze.
To resume normal playback, press ▷ PLAY.





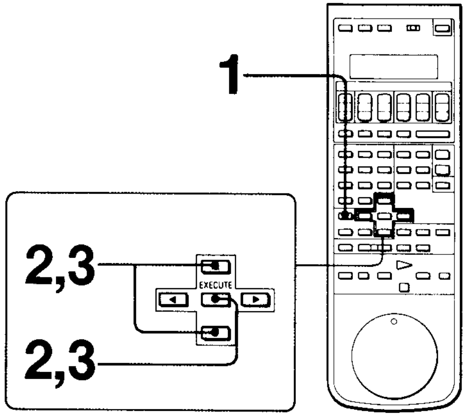
Data Screen

Data screen information illustrated on the left will automatically appear on the screen during playback or recording as a reference. Note, however, that the data screen will not be displayed when the VTR is in slow motion or playback pause mode.

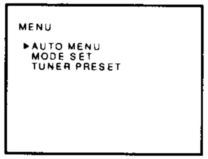
■To erase or display the data screen
Press DATA SCREEN.

Notes on the remaining tape length indicator

- The remaining tape length indicator only shows the approximate amount of tape left.
- The indication may shift vertically during the fast-forward or rewind mode.
- It may not operate properly when a short tape, such as the E-30 and VHS-C type cassette, or when a non-standardized tape is inserted.



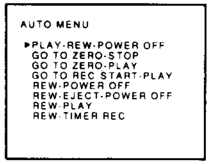
1



MENU

▶AUTO MENU
MODE SET
TUNER PRESET

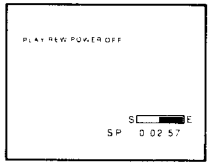
2



AUTO MENU

▶PLAY-REW-POWER OFF
GO TO ZERO-STOP
GO TO ZERO-PLAY
GO TO REC START-PLAY
REW-POWER OFF
REW-EJECT-POWER OFF
REW-PLAY
REW-TIMER REC

3



PLAY-REW-POWER OFF

S E
SP 0 02 57

Assigning a Desired Operation Mode

Guided by the AUTO MENU, you can make the VTR enter the desired operational sequence automatically.

1 **Press MENU while the VTR is in the stop mode.**
The main MENU appears.

2 **Move cursor with ▲ or ▼ to AUTO MENU and press EXECUTE.**
The AUTO MENU appears.

3 **Move cursor with ▲ or ▼ to the desired operational sequence and press EXECUTE.**
The selected operation will begin.

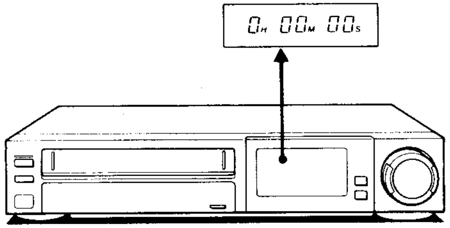
The selected operating mode will be superimposed on the TV screen for a few seconds. The AUTO indicator will light in the display window during AUTO MENU operation.

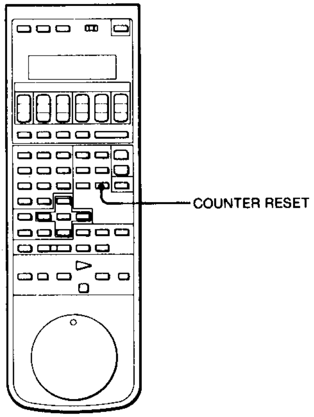
Notes on AUTO MENU operation
AUTO MENU cannot be operated if there is no cassette installed or if the VTR is in modes other than stop mode. A short beep alerts you if the AUTO MENU is not operable.

Note on "GO TO REC START-PLAY"
The recording start point data will be erased from the memory after the following operations and "GO TO REC START-PLAY" will not be operable.

- When COUNTER RESET is pressed.
- When cassette is ejected and re-inserted.
- When HIGH SPEED REWIND is pressed.

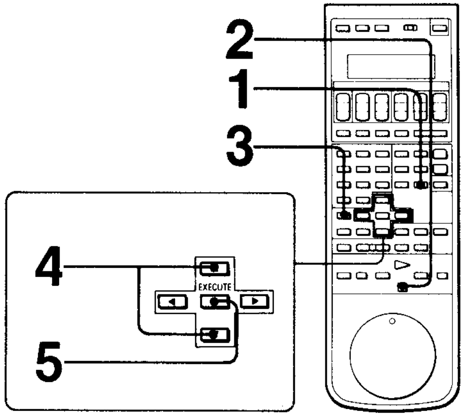
Use of the Tape Counter





Understanding Counter Zero Position

The tape counter on this VTR can be used as a reference when you wish to locate a certain scene after recording or playback. Press COUNTER RESET to set the counter to "0H00M00S" (counter zero position) before operation. The VTR will keep counting the length of tape being played back or recorded. Note, however, that the tape counter will not count the portions of tape with no signals recorded. This VTR automatically resets the counter to zero whenever a cassette is inserted. Two additional features using COUNTER RESET are available on this VTR.



Tape Return

The VTR can search for the counter zero position and stop. This function is useful for locating a particular scene after recording or playback.

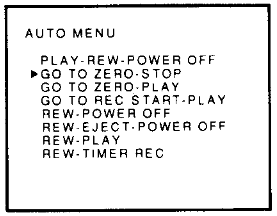
1 **Press COUNTER RESET at the desired scene during recording or playback.**

2 **Press ■ to stop recording or playback.**

3 **Press MENU and select AUTO MENU.**
See "Assigning a Desired Operation Mode" for operation.

4 **Move cursor to "GO TO ZERO-STOP."**

5 **Press EXECUTE.**



```
AUTO MENU

  PLAY-REW-POWER OFF
 ▶GO TO ZERO-STOP
  GO TO ZERO-PLAY
  GO TO REC START-PLAY
  REW-POWER OFF
  REW-EJECT-POWER OFF
  REW-PLAY
  REW-TIMER REC
```

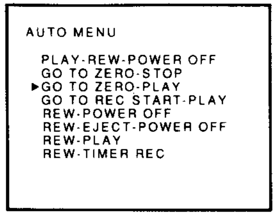
Tape Return Play

The VTR will even search and start playback from the counter zero position after recording or playback.

1 **Repeat steps 1 to 3 in the Tape Return operation.**

2 **Move cursor to "GO TO ZERO-PLAY"**

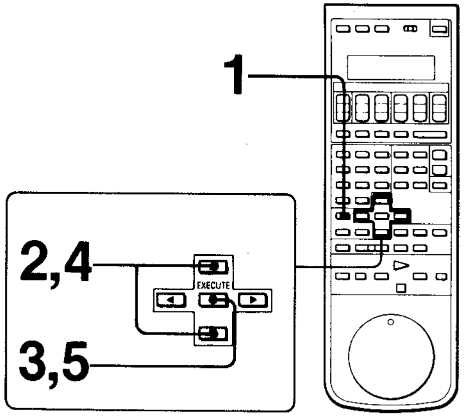
3 **Press EXECUTE.**



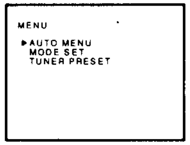
```
AUTO MENU

  PLAY-REW-POWER OFF
  GO TO ZERO-STOP
 ▶GO TO ZERO-PLAY
  GO TO REC START-PLAY
  REW-POWER OFF
  REW-EJECT-POWER OFF
  REW-PLAY
  REW-TIMER REC
```

—16—

Timer Activated Recording

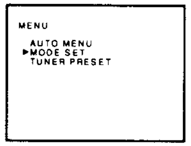

1
2,4
3,5
EXECUTE

1



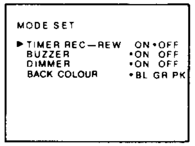
```
MENU

▶AUTO MENU
 MODE SET
 TUNER PRESET
```

2



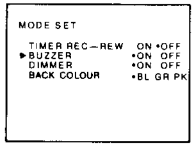
```
MENU

 AUTO MENU
▶MODE SET
 TUNER PRESET
```

3



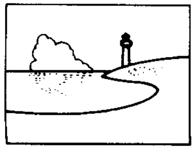
```
MODE SET

▶TIMER REC—REW   ON •OFF
 BUZZER         •ON  OFF
 DIMMER         •ON  OFF
 BACK COLOUR    •BL GR PK
```

4



```
MODE SET

 TIMER REC—REW   ON •OFF
▶BUZZER         •ON  OFF
 DIMMER         •ON  OFF
 BACK COLOUR    •BL GR PK
```

5



Timer Recording on this VTR

Up to eight preselected programmes, can be set on this unit, up to one month in advance.

Before You Begin

- Turn on the TV and adjust it to view the VTR output.
- Check to see that the clock on the Commander and the VTR shows the present time.
- To operate the SLV-373VP, read "VPS Function" first.

To Turn On/Off the Warning Buzzer

It is possible to turn on or off the beep sound which this VTR will give whenever an illogical operation command is sent from the Commander.

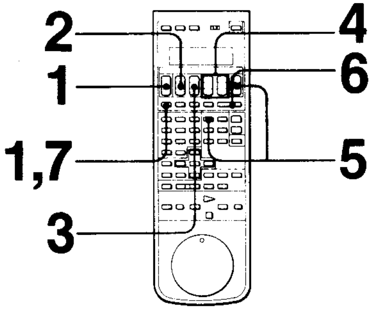
1 **Press MENU in the stop mode.**
The main MENU appears.

2 **Move cursor with ▲ or ▼ to MODE SET.**

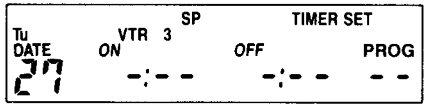
3 **Press EXECUTE.**
The MODE SET menu appears.

4 **Move cursor with ▲ or ▼ to BUZZER.**
Select ON to activate and OFF to deactivate the buzzer by ◀ or ▶.

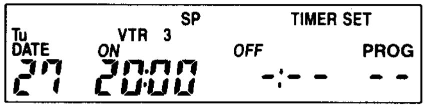
5 **Press EXECUTE to store the setting and return to the original screen.**



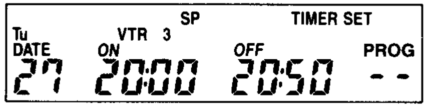
1


SP
TIMER SET
Tu
VTR 3
DATE
ON
OFF
PROG
27
-:- -
-:- -
- -

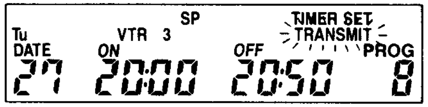
2,3


SP
TIMER SET
Tu
VTR 3
DATE
ON
OFF
PROG
27
20:00
-:- -
- -

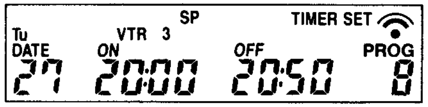
4


SP
TIMER SET
Tu
VTR 3
DATE
ON
OFF
PROG
27
20:00
20:50
- -

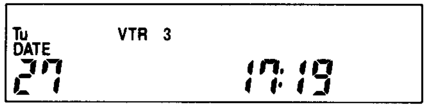
5


SP
TIMER SET
TRANSMIT
Tu
VTR 3
DATE
ON
OFF
PROG
27
20:00
20:50
8

6


SP
TIMER SET
Tu
VTR 3
DATE
ON
OFF
PROG
27
20:00
20:50
8

7


Tu
VTR 3
DATE
27
17:19

Operation

Example: To record a programme broadcast from 20:00 to 20:50 on Tuesday, November 27, 1990 on programme position 8.

1 **Press TIMER SET first, then press D until 27 appears.**
The day of the week, Tu (Tuesday), is automatically set.

2 **Set the recording start hour with TURN ON H.**

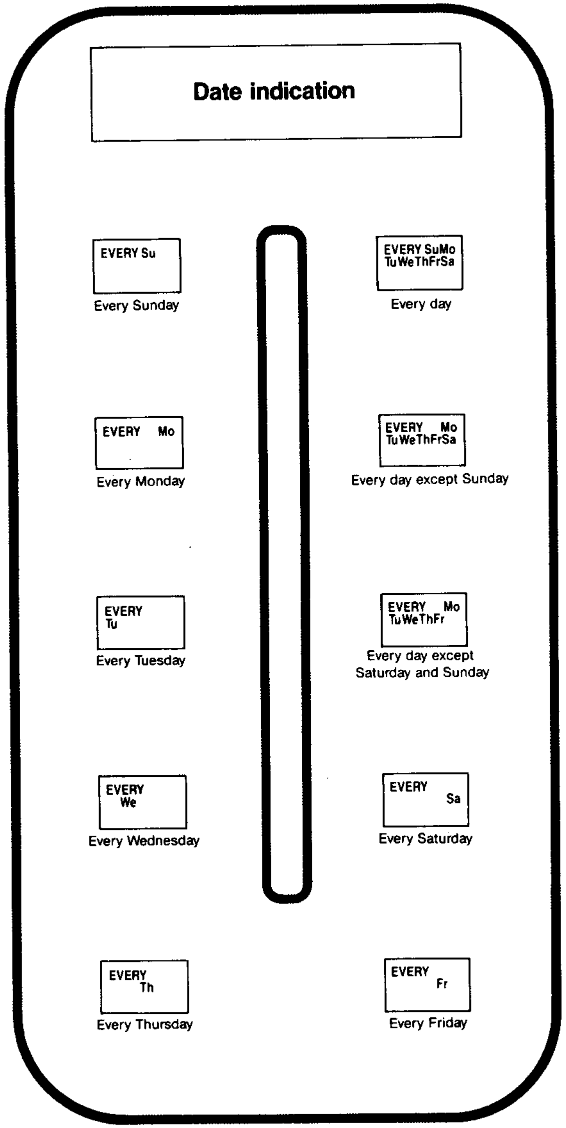
3 **Set the recording start minute with TURN ON M.**

4 **Set the recording end hour and minute with TURN OFF H and M referring to step 2 and 3.**

5 **Set the programme position with the PROG +/– button. To select the recording speed LP, press REC MODE so that the LP indicator appears in the display.**
The TRANSMIT indicator blinks to indicate that all of the items are entered.

6 **Point the Commander to the VTR and press TRANSMIT.**
With a beep sound, the VTR enters the timer recording standby mode. The PROGRAM LIST appears on the screen for a few seconds.

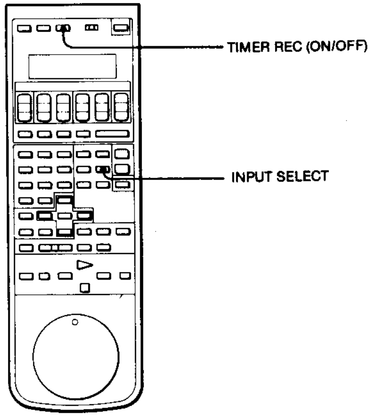
7 **Press TIMER SET so that the present time appears on the LCD display.**
The VTR turns on, starts recording at the selected time, and turns off after recording ends.


Date indication
EVERY Su
Every Sunday
EVERY SuMo TuWeThFrSa
Every day
EVERY Mo
Every Monday
EVERY Mo TuWeThFrSa
Every day except Sunday
EVERY Tu
Every Tuesday
EVERY Mo TuWeThFr
Every day except Saturday and Sunday
EVERY We
Every Wednesday
EVERY Sa
Every Saturday
EVERY Th
Every Thursday
EVERY Fr
Every Friday

Daily/Weekly Recording

This VTR can be preset to record the same programme each day of the week (daily recording) or the same programme on a specific day of every week.

Press D – on the Commander to change the LCD display in the order shown in the illustration instead of step 1 in the "Operation." When the desired recording mode is set and transmitted to the VTR, the corresponding indicator lights in the display window.


TIMER REC (ON/OFF)
INPUT SELECT

To Set Other Programmes

Repeat steps **1** to **6** in "Operation" before step **7**.

To Stop Timer Recording

Press TIMER REC ON/OFF.

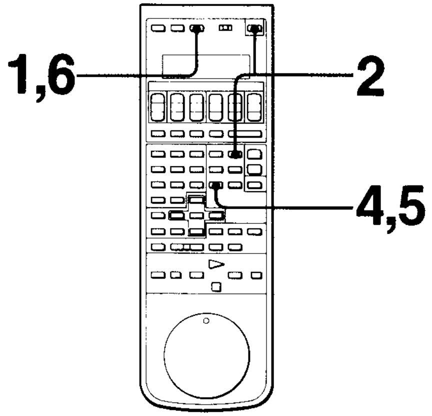
To Record from Equipment Connected to EURO-AV or LINE IN 2 VIDEO/AUDIO Jacks

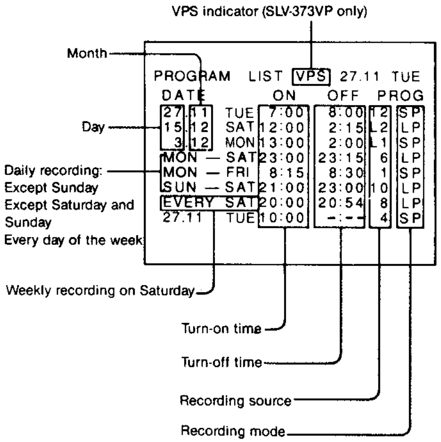
Press INPUT SELECT anytime in step **1** to **5** to change the indication from PROG – – to LINE L1 to LINE L2.

If a short beep sounds repeatedly when TRANSMIT is pressed
When BUZZER ON is selected in the MODE SET menu, the short beep indicates that the transmission is not received on the VTR. Press TRANSMIT again, then check the items below.
- No cassette is inserted.
- An illogical setting has been made.
- Timer setting can only be performed when the VTR is in turned off, stop, or timer recording mode.
- Eight timer settings have already been made.
- The tape is at its end.

If the tape is ejected after pressing TRANSMIT
The safety tab of the inserted cassette is removed.

Understanding "one month"
This VTR sets the timer to record programmes to be broadcast between today and one day before the same date in the next month.




VPS indicator (SLV-373VP only)
Month
Day
Daily recording:
Except Sunday
Except Saturday and Sunday
Every day of the week
Weekly recording on Saturday
Turn-on time
Turn-off time
Recording source
Recording mode

```
PROGRAM  LIST VPS 27.11 TUE
 DATE         ON     OFF  PROG
 27.11  TUE  7:00   8:00 12 SP
 15.12  SAT 12:00   2:15 L2 LP
  3.12  MON 13:00   2:00 L1 SP
 MON — SAT  23:00  23:15  6 LP
 MON — FRI   8:15   8:30  1 SP
 SUN — SAT  21:00  23:00 10 LP
 EVERY SAT  20:00  20:54  8 LP
 27.11  TUE 10:00   -:--  4 SP
```

Checking the Timer Settings

The timer settings can be checked while the VTR is in the timer standby mode by displaying the programme list on the screen.

1 **Press TIMER REC ON/OFF to turn off the TIMER REC ON/OFF indicator in the display window.**

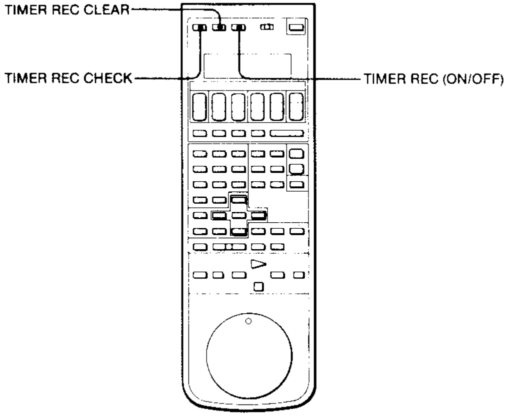
2 **Turn on the VTR and press TV/VTR to light the VTR indicator.**
(Only when connection is made via EURO-AV.)

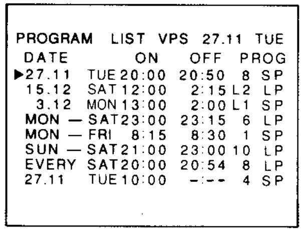
3 **Turn on the TV.**
Set to the programme position for VTR if VTR-TV connection is made via the aerial sockets. Select VTR input on the TV if VTR-TV connection is made via EURO-AV.

4 **Press TIMER ON SCREEN.**
The programme list appears.

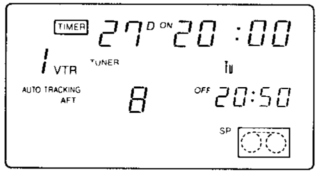
5 **Press TIMER ON SCREEN again to return to the original screen.**

6 **Press TIMER REC ON/OFF to return to the timer recording standby mode.**


TIMER REC CLEAR
TIMER REC CHECK
TIMER REC (ON/OFF)



```
PROGRAM  LIST VPS 27.11 TUE
 DATE         ON     OFF  PROG
▶27.11  TUE 20:00  20:50  8 SP
 15.12  SAT 12:00   2:15 L2 LP
  3.12  MON 13:00   2:00 L1 SP
 MON — SAT  23:00  23:15  6 LP
 MON — FRI   8:15   8:30  1 SP
 SUN — SAT  21:00  23:00 10 LP
 EVERY SAT  20:00  20:54  8 LP
 27.11  TUE 10:00   -:--  4 SP
```


TIMER
27
D
ON
20:00
1
VTR
TUNER
TV
AUTO TRACKING
AFT
8
OFF
20:50
SP

Clearing/Correcting the Timer Setting

■Referring to the programme list

1 **Display the programme list referring to steps 1 to 4 in "Checking the Timer Settings."**

2 **Press TIMER REC CHECK to call up and move cursor to the setting you want to correct or clear.**

3 **To clear the setting, press TIMER REC CLEAR.**
If there are other timer settings on the list, press TIMER REC ON/OFF return to the timer recording standby mode.
To correct the setting, re-enter all of the items using the Commander. Refer to "Timer Activated Recording — Operation" steps 1 to 6.
The VTR automatically enters the timer recording standby mode.

■Clearing the setting without the programme list

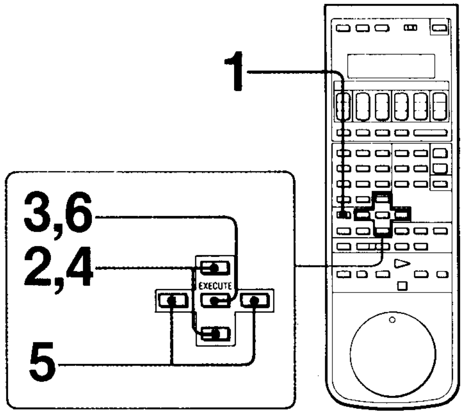
1 **Press TIMER REC ON/OFF.**

2 **Press TIMER REC CHECK repeatedly until the desired programme appears in the display window.**

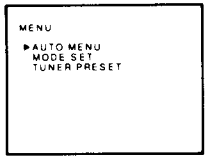
3 **Press TIMER REC CLEAR.**

4 **Press TIMER REC ON/OFF to return to the timer recording standby mode if there are other programmes set for timer recording.**

Timer Activated Recording

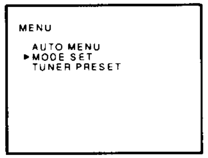


1



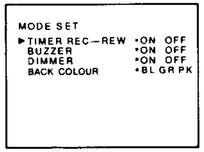
```
MENU

▶AUTO MENU
 MODE SET
 TUNER PRESET
```

2



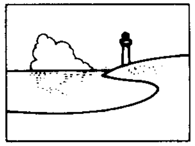
```
MENU

 AUTO MENU
▶MODE SET
 TUNER PRESET
```

3,4,5



```
MODE SET
▶TIMER REC—REW   •ON  OFF
 BUZZER          •ON  OFF
 DIMMER          •ON  OFF
 BACK COLOUR     •BL GR PK
```

6



To Automatically Rewind the Tape After Timer Recording

1 **Before setting the timer, press MENU.**

2 **Move cursor with ▲ or ▼ to MODE SET in the main menu.**

3 **Press EXECUTE.**

4 **Move cursor with ▲ or ▼ to TIMER REC·REW.**

5 **Press ◀ or ▶ to move the dot to ON.**
To cancel this setting, move the dot to OFF.

6 **Press EXECUTE to store this setting and return to the original screen.**

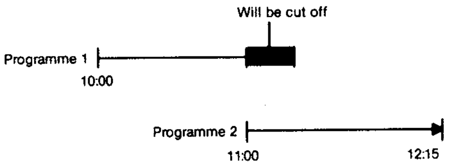
Using the VTR during Timer Recording Standby Mode

1 **Press TIMER REC ON/OFF to turn off the TIMER REC indicator.**

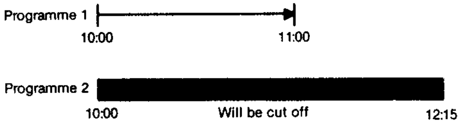
2 **Turn on the power of the VTR.**
The VTR is ready to be used.

3 **After using the VTR, press TIMER REC ON/OFF and light the TIMER indicator to re-enter the timer recording standby mode.**

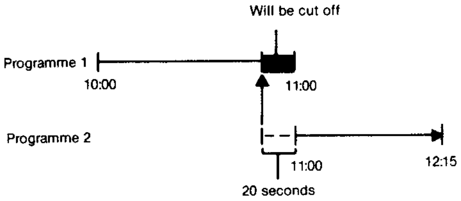
When the Timer Settings Overlap



■ **If the setting of two programmes overlap**
The recording of the following programme will begin automatically before the proceeding programme ends.



■ **If the turn on time of two programmes are the same**
The VTR will record the programme with the smaller programme number or listed first on the programme list. The programme with the larger programme number or listed lower in the list will be erased.

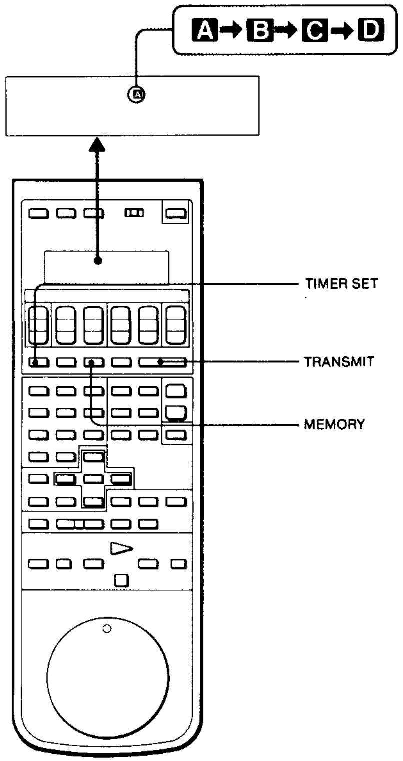


■ **If the recording end time of programme 1 and the recording start time of programme 2 are the same**
The last 20 seconds of programme 1 will not be recorded because the VTR will enter the recording pause mode for programme 2 before programme 1 ends.

Power interruption during timer recording standby/timer recording mode

- If the power interruption lasts less than an hour, the VTR will enter the recording standby mode or resume timer recording when the power is recovered.
- If the power interruption exceeds an hour during the recording standby mode, the timer settings will be cleared.
Reset the clock and re-enter the items for timer recording again. If the power interruption occurred during timer recording, the recording will stop and the VTR will be turned off.

Timer Activated Recording



To Store the Frequently Used Timer Settings in the Commander

The items selected for one timer recording programme will be erased from the LCD when TIMER SET is pressed, and cleared from the programme list as well when recording is over.
However, the turn-on/turn-off time and the programme position of up to four programmes can be stored in the Commander to be recalled later. This enables you to quickly access the most frequently used items, especially your favorite weekly programme, since the recording date will automatically be shifted to the next week after the recording is over.

■Storing the parameters

1 **Press TIMER SET and MEMORY to indicate MEMORY A.**

2 **Set all of the items for timer recording referring to "Timer Activated Recording — Operation."**

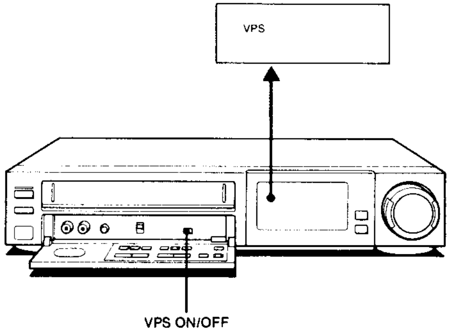
3 **Press MEMORY to change the indication to B, C, or D, and repeat step 2 for other programmes.**
The items set will be kept in the memory even when TIMER SET is pressed.

■Recalling and re-entering the items

1 **Press TIMER SET and MEMORY to call up the desired memory indication (A, B, C, or D).**

2 **Make whatever changes necessary.**

3 **Press TRANSMIT.**
The VTR enters the timer recording standby mode.



VPS (Video Programme System) Function (SLV-373VP only)

The German broadcasting system transmits VPS signals with the TV programmes which assures that your timer recording will be performed without missing any portion of it regardless of any earliness, time delay, extension, or broadcast interruption which might occur during that programme.

■Operation

1 **Check whether VPS is transmitted with the programme to be recorded.**

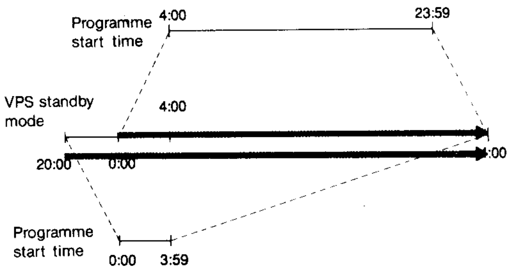
2 **Press VPS ON/OFF so that the VPS indicator lights in the display window.**

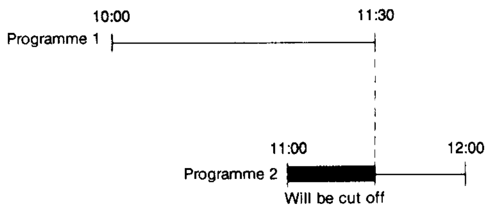
3 **Set the timer referring to "Timer Activated Recording — Operation."**

Notes

- The VPS button is effective only when the TIMER REC ON/OFF indicator is turned off.
- If the VPS signal was not received on the VTR because it was too weak or because the station failed to transmit, timer recording will be performed without the VPS function regardless of the VPS indication.
- The recording will stop when the VTR receives a VPS programme interruption code during recording, for example, when an urgent news bulletin was inserted. As soon as the interrupted programme resumes, recording will continue.

Timer Activated Recording





■ **VPS standby mode**

The VTR will enter the standby mode for VPS recording far before the turn on time and remains in the standby mode passed the preset turn on time until the VPS signal is received to prepare for any change in the actual broadcast time.

When the VPS timer recording is set for a programme which is expected to start between 4:00 and 23:59, the VTR will enter the standby mode at 0:00 that day and will keep on waiting for the VPS signal until 4:00 of the next day.

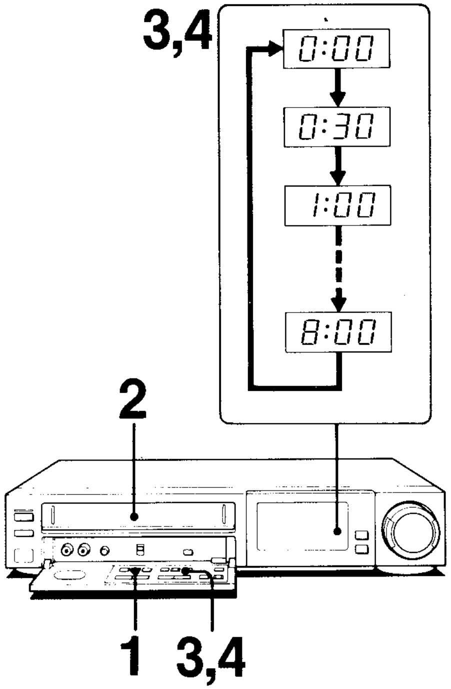
When the VPS timer recording is set for a programme which is expected to start between 0:00 and 3:59, the VTR will enter the standby mode at 20:00 the day before the recording day and will keep on waiting for the VPS signal until 4:00 on the recording day.

Note
When the VTR is in the VPS standby mode, programme position numbers set for timer recording appear in the display window sequentially by few seconds.

■ **If the actual recording time overlaps with the next timer recording programme**

There may be cases when the actual broadcast time of two timer recording programmes overlap owing to the shift made by the VPS signal. In this case, the programme that was broadcast first always has priority. The recording of the second programme will begin only after the first programme is over.

Quick Timer Recording



What is Quick Timer Recording?

The quick timer recording function provides a short cut to enter the timer recording mode or to use the timer to turn off the VTR after recording is over. The timer can be set to operate within 8 hours in units of 30 minutes.

Operation

If you are recording, skip steps 1 to 3.

1 **Press INPUT SELECT so that TUNER indicator is turned on.**

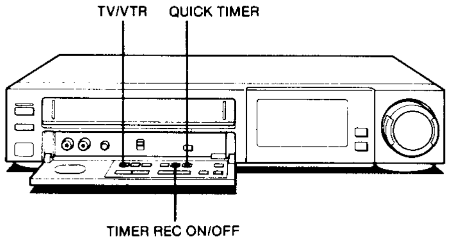
2 **Insert a cassette.**

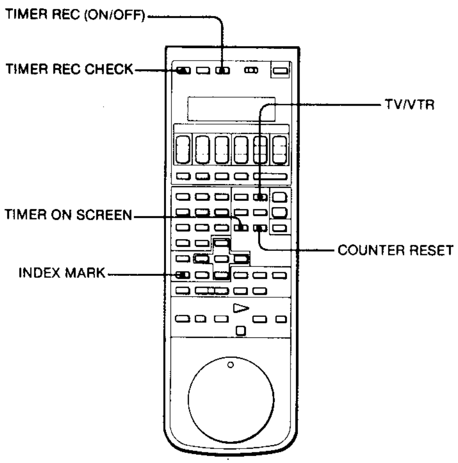
3 **Press QUICK TIMER.**
TIMER indicator lights in the display window. While 0:00 and programme position number is blinking in the display window, select the desired programme number with PROGRAM +/–.
A cassette with its safety tab removed will be ejected.

4 **Press QUICK TIMER again to start recording.**
Press QUICK TIMER again to set the recording duration within 30 seconds from step 3, otherwise the power will be turned off. Each press of QUICK TIMER changes the indication in the display window in units of 30 minutes.

5 **The recording duration will decrease minute by minute until 0:00 when the VTR will be automatically turned off.**

Quick Timer Recording





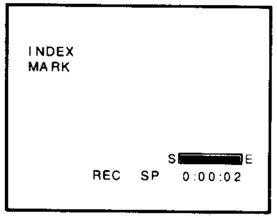
■ Buttons operable during quick timer recording

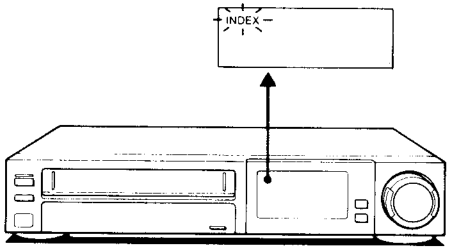
- **TIMER REC ON/OFF** stops quick timer recording.
- **QUICK TIMER** changes the recording duration.
- **TIMER ON SCREEN** displays the programme list.
- **TIMER REC CHECK** changes the programme number in the display window.
- **COUNTER RESET** resets the counter to zero.
- **INDEX MARK** marks an index signal.
- **TV/VTR** switches the screen to another programme received on the TV.

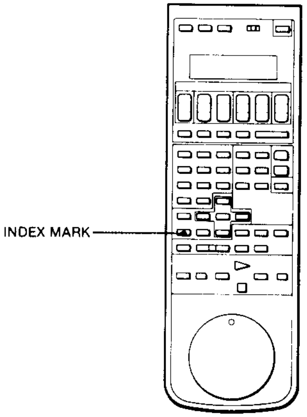
If power interruption occurs during quick timer recording
Recording will stop and the VTR will be turned off. If the power interruption lasted for less than one hour and if the power recovered within the quick timer duration, recording will resume from that instant.

If the unit is in timer recording standby mode
Press TIMER REC ON/OFF to turn off the indicator, then follow steps **4** and **5**.

Index Function







Marking Index Signals

The desired position on a tape can be located easily by detecting the index signals. There are two ways in which to mark index signals: automatic and manual. When the index signal is being marked, INDEX flashes in the display window and the INDEX MARK display will appear on the screen.

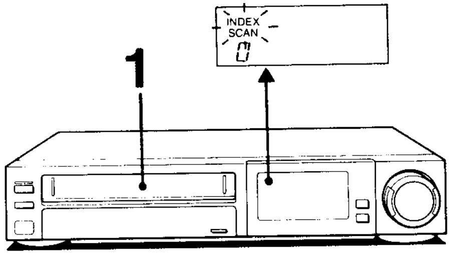
■ Automatic index mark
An index signal is automatically marked on the tape when the VTR starts recording.

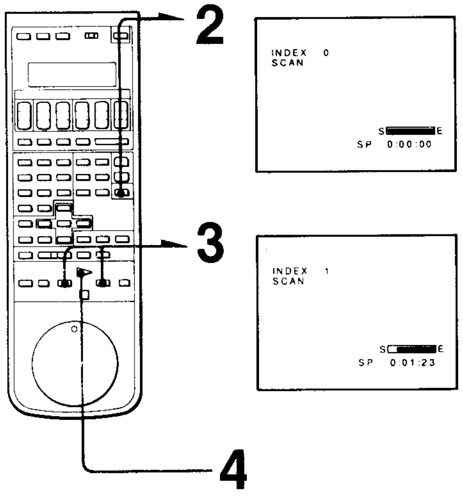
■ Manual index mark
Index signals can be marked at desired scenes. Press INDEX MARK to mark an index.

Notes

- Leave an interval of more than 2-minute interval between two index points so that the VTR can detect each INDEX signal accurately.
- The recorded sound will not be heard while marking an index signal. But the signal will not be erased.
- Index signals cannot be marked on a tape whose safety tab is removed or on an unrecorded portion of the tape.

Index Function


1
INDEX
SCAN
0


2
3
4
INDEX 0
SCAN
S E
SP 0:00:00
INDEX 1
SCAN
S E
SP 0:01:23

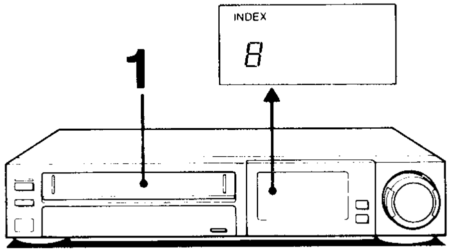
Playing Back from the Index Point — INDEX SCAN

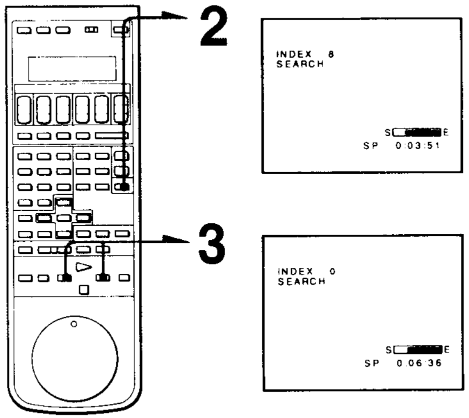
1 **Insert a cassette with index signals.**

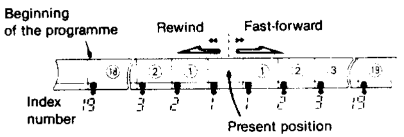
2 **Press INDEX once.**
INDEX or SCAN indicator blinks alternately and 0 (zero) lights in the display window.

3 **Press ◄◄ to playback from the previous programme.**
Press ►► to playback from the programme ahead.
The VTR will advance to the next or previous index signal. Then the VTR will play the tape for approximately 10 seconds, and then move to the next index in the selected direction. The index number changes one by one.

4 **Press ▷ when the desired index signal is detected.**




2
3
INDEX 8
SEARCH
S E
SP 0:03:51
INDEX 0
SEARCH
S E
SP 0:06:36


Beginning of the programme
Rewind
Fast-forward
19
3
2
1
1
2
3
19
Index number
Present position

Locating an Index — INDEX SEARCH

Direct search of the desired index point can be performed by entering the number of how many indexes ahead or behind it is from the current tape position. The VTR counts down how may more indexes should be searched for and displays the sequence in the display window. Up to 19 indexes from the present position can be searched.

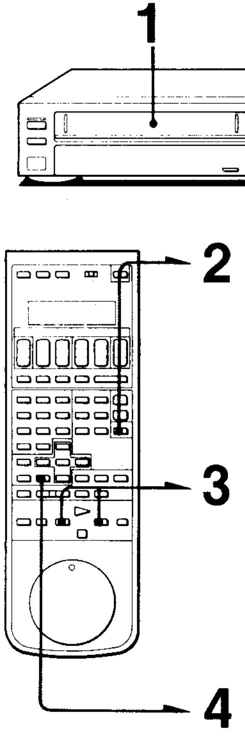
1 **Insert a cassette with index signals.**

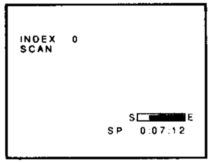
2 **Press INDEX to show how many indexes should be counted to reach the desired scene.**

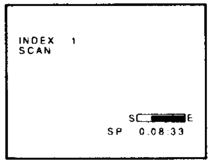
3 **Press ◄◄ if the index is behind or ►► if the index is ahead of the current tape position.**
The VTR starts searching and the index number will be counted down to zero.

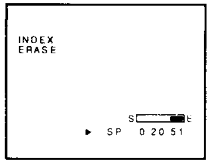
Playback from the desired point starts.

Index Function




INDEX 0
SCAN
S E
SP 0:07:12


INDEX 1
SCAN
S E
SP 0.08:33


INDEX
ERASE
S E
▶ SP 0 20 51

Erasing an Index

The index marked on the tape can be erased.

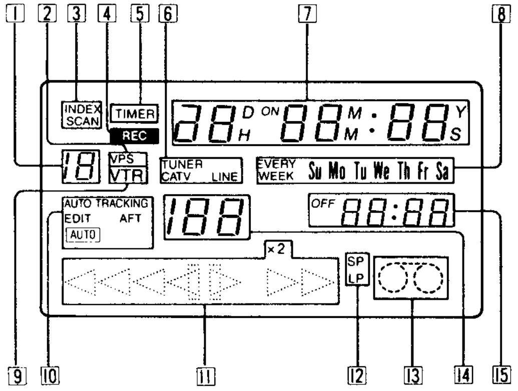
1 **Insert a cassette with index signals.**

2 **Press INDEX once.**

3 **Press ◀◀ or ▶▶ to search for the index signal.**
When the VTR detects an index signal, the VTR will play the tape for approximately 10 seconds from the index. If that is the index you want to erase, go to step **4**. If that is not the index you want to erase, wait until the desired index is searched.

4 **Press INDEX ERASE while the VTR is in step 3.**
That index signal will be erased. While the index signal is being erased, the recorded sound will not be heard, but it will not be erased. If INDEX ERASE is not pressed within the 10 seconds of playback, the VTR will return to step 3.

Indications in the Display Window


1
2
3
4
5
6
7
8
INDEX SCAN
TIMER
REC
D ON M Y
H M S
VPS
VTR
TUNER
CATV LINE
EVERY WEEK
Su Mo Tu We Th Fr Sa
AUTO TRACKING
EDIT AFT
AUTO
OFF
×2
SP
LP
9
10
11
12
13
14
15

1 **Index number indicator**

2 **VPS indicator (SLV-373VP only)**
Appears while timer recording is performed with VPS (Video Programme Ssytem) function.

3 **INDEX SCAN indicator**
Appears while the VTR is scanning the index point.

4 **REC (recording) indicator**
Appears while the VTR is performing normal recording, timer recording, or performing quick timer recording.

5 **TIMER recording indicator**
Appears while the VTR is performing timer-recording, waiting for the turn-on time of timer recording, or performing quick timer recording.

6 **Input mode indicators**

7 **Linear time counter and turn-on time of timer recording**

8 **Day of the week indicator**

9 **VTR indicator**
Appears while viewing the playback of the VTR or a programme selected on the VTR. As long as this indicator lights in the display window, the programme selected on the TV does not appear on the screen.

10 **Various function indicators**
AUTO TRACKING (Automatic tracking), EDIT, AFT (Automatic Fine Tuning) and AUTO (AUTO MENU display).

11 **Tape operation indicator**

12 **Tape speed indicator**

13 **Cassette indicator**

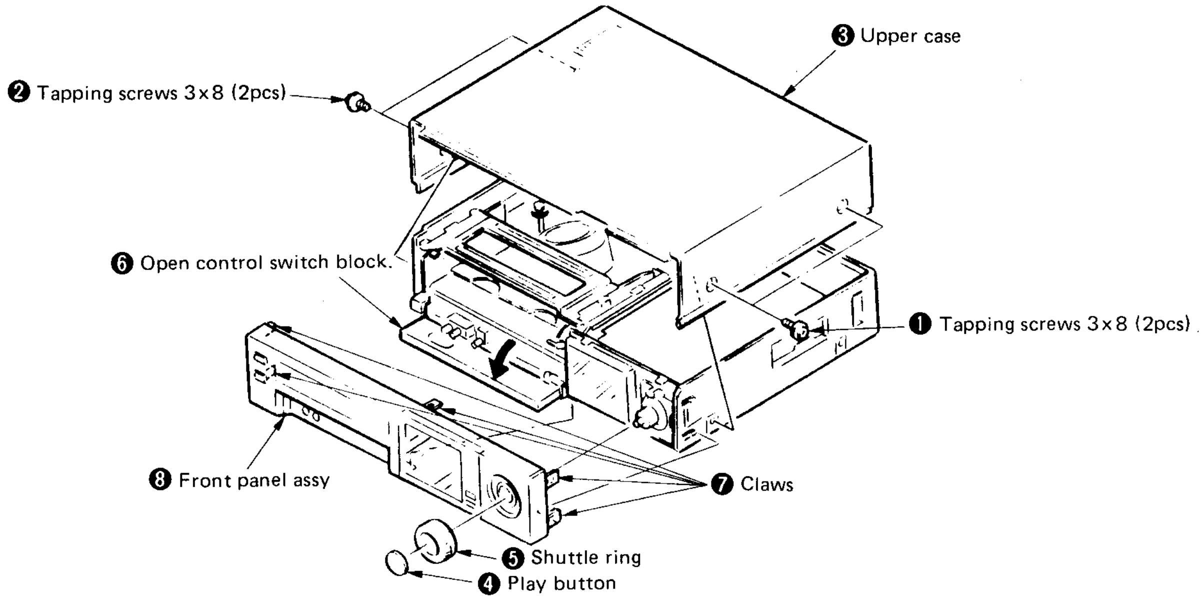
14 **Programme position/input mode indicators**

15 **Current time, turn-off time of timer recording, and quick timer recording time.**

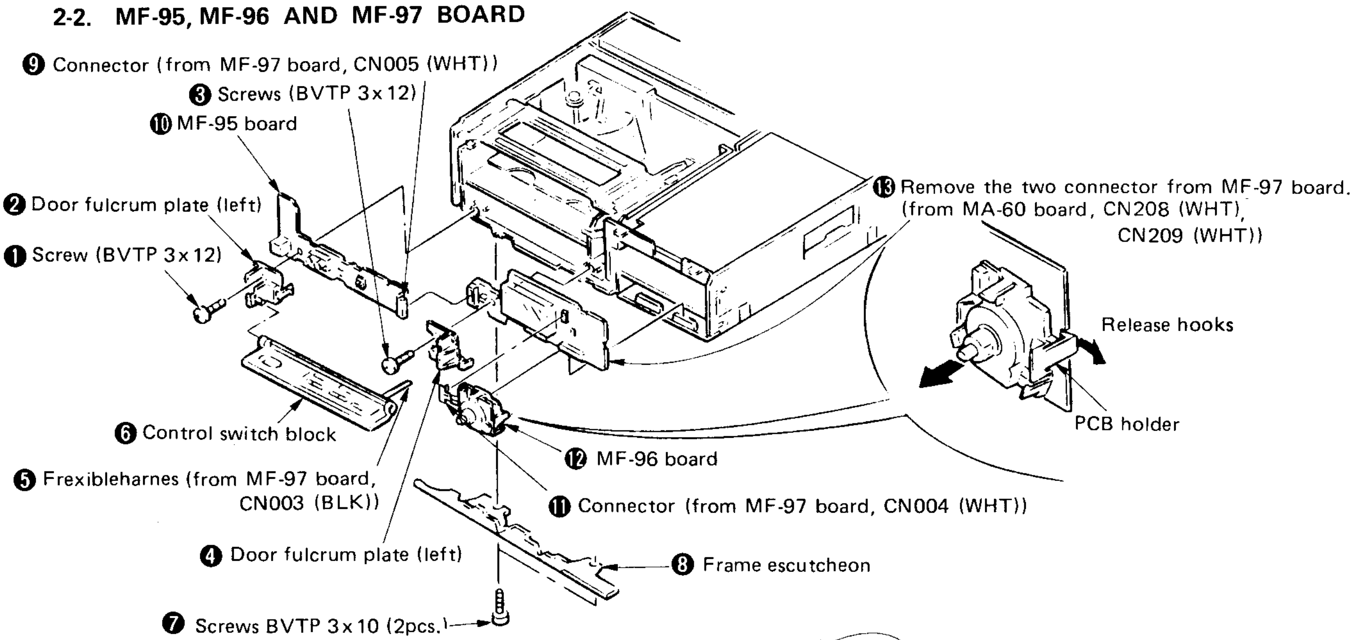
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

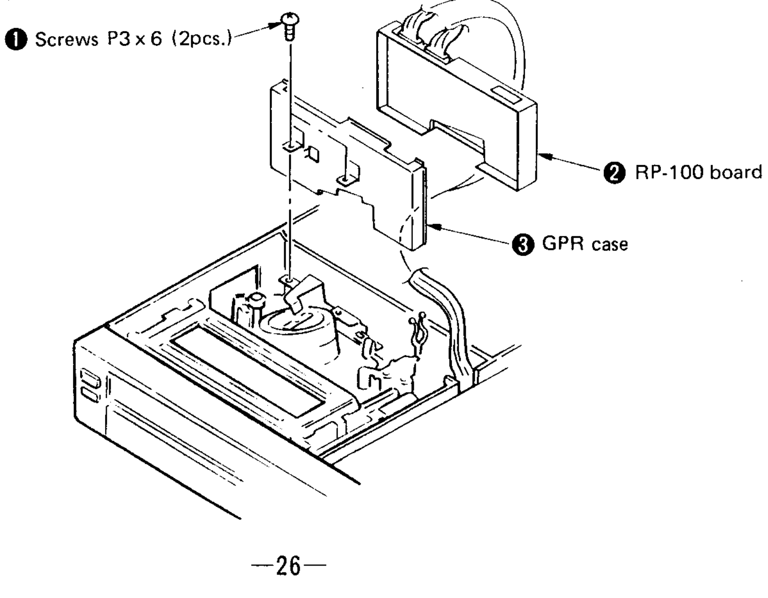
2-1. UPPER CASE, FRONT PANEL ASSY


③ Upper case
② Tapping screws 3x8 (2pcs)
⑥ Open control switch block.
① Tapping screws 3x8 (2pcs).
⑧ Front panel assy
⑦ Claws
⑤ Shuttle ring
④ Play button

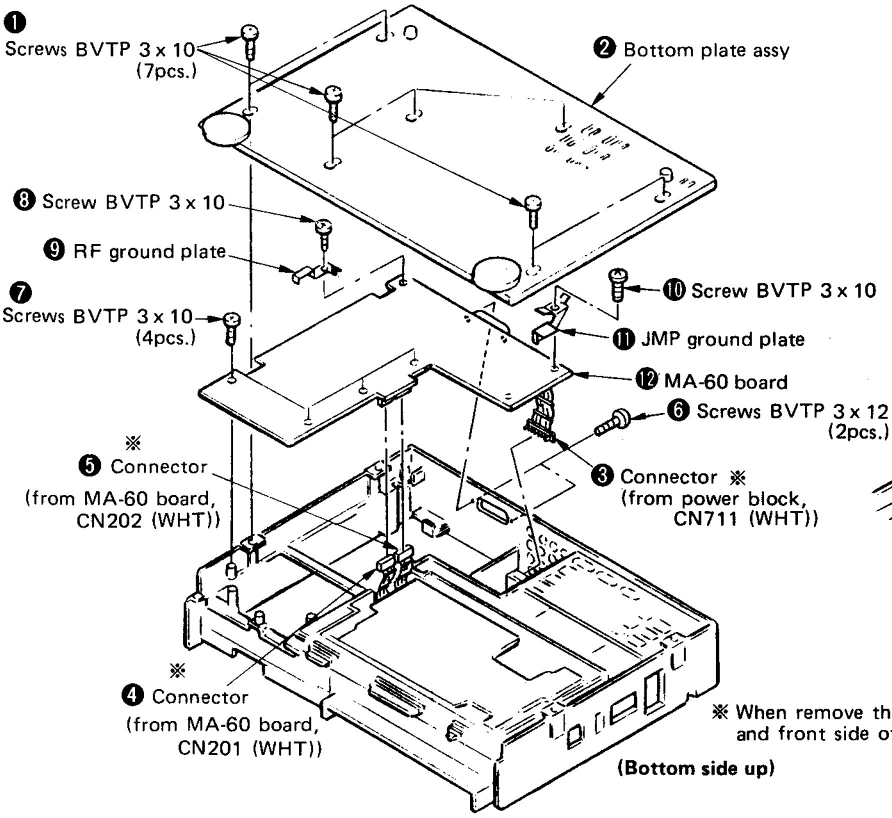
2-2. MF-95, MF-96 AND MF-97 BOARD


⑨ Connector (from MF-97 board, CN005 (WHT))
③ Screws (BVTP 3x12)
⑩ MF-95 board
② Door fulcrum plate (left)
① Screw (BVTP 3x12)
⑬ Remove the two connector from MF-97 board. (from MA-60 board, CN208 (WHT), CN209 (WHT))
Release hooks
PCB holder
⑥ Control switch block
⑫ MF-96 board
⑤ Frexibleharnes (from MF-97 board, CN003 (BLK))
⑪ Connector (from MF-97 board, CN004 (WHT))
④ Door fulcrum plate (left)
⑧ Frame escutcheon
⑦ Screws BVTP 3x10 (2pcs.)

2-3. RP-100 BOARD


① Screws P3x6 (2pcs.)
② RP-100 board
③ GPR case

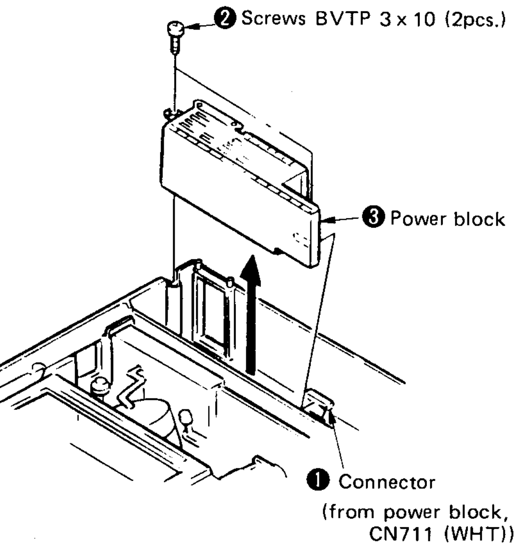
2-4. BOTTOM PLATE, MA-60 BOARD


❶ Screws BVTP 3 x 10 (7pcs.)
❷ Bottom plate assy
❽ Screw BVTP 3 x 10
❾ RF ground plate
❼ Screws BVTP 3 x 10 (4pcs.)
❿ Screw BVTP 3 x 10
⓫ JMP ground plate
⓬ MA-60 board
❻ Screws BVTP 3 x 12 (2pcs.)
※ ❺ Connector (from MA-60 board, CN202 (WHT))
❸ Connector ※ (from power block, CN711 (WHT))
※ ❹ Connector (from MA-60 board, CN201 (WHT))

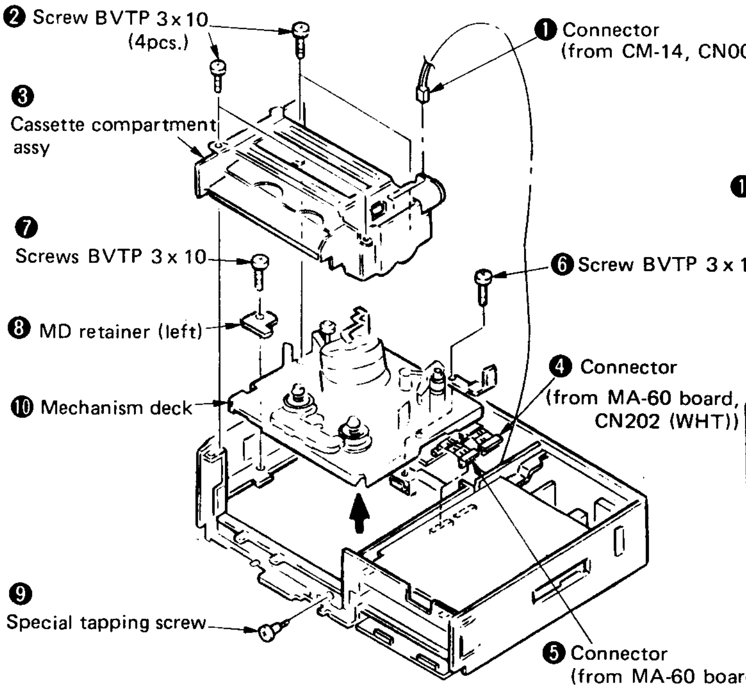
※ When remove the connectors and front side of set at first.

(Bottom side up)

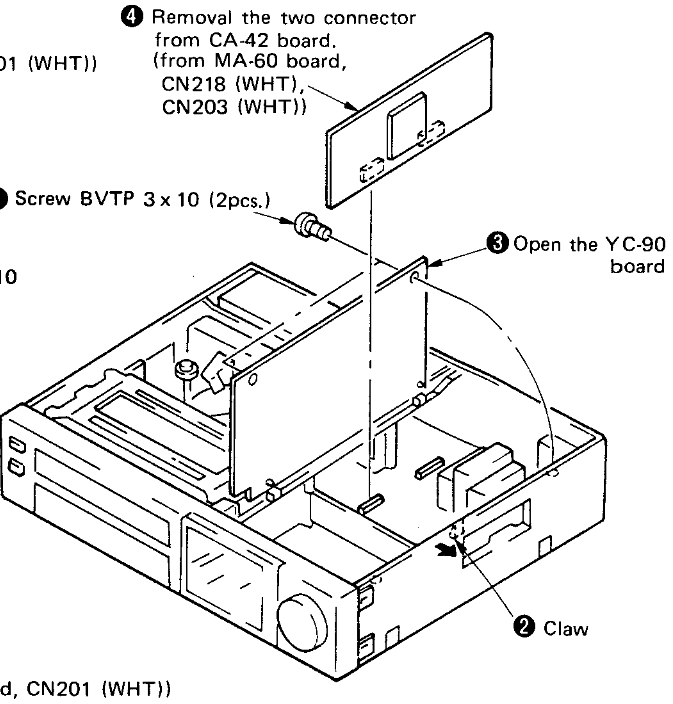
2-5. POWER BLOCK


❷ Screws BVTP 3 x 10 (2pcs.)
❸ Power block
❶ Connector (from power block, CN711 (WHT))

2-6. CASSETTE COMPARTMENT ASSY AND MECHANISM DECK ASSY

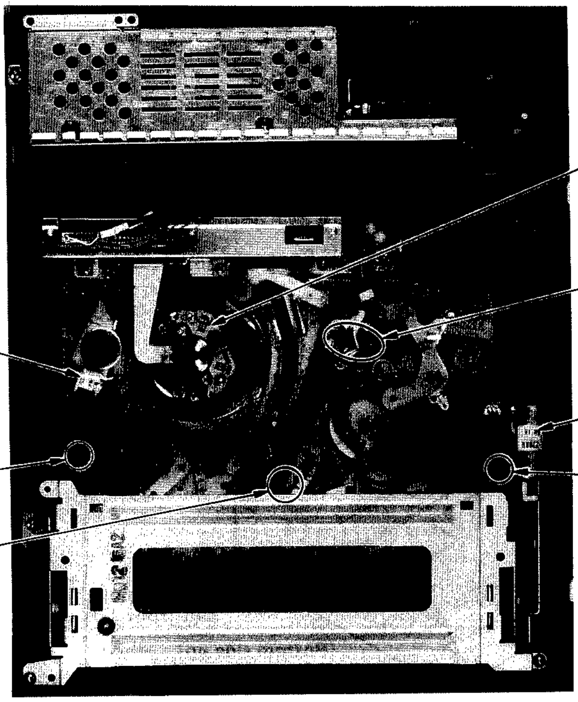

❷ Screw BVTP 3 x 10 (4pcs.)
❶ Connector (from CM-14, CN001 (WHT))
❸ Cassette compartment assy
❼ Screws BVTP 3 x 10
❻ Screw BVTP 3 x 10
❽ MD retainer (left)
❹ Connector (from MA-60 board, CN202 (WHT))
❿ Mechanism deck
❾ Special tapping screw
❺ Connector (from MA-60 board, CN201 (WHT))

2-7. YC-90 AND CA-42 BOARD


❹ Removal the two connector from CA-42 board. (from MA-60 board, CN218 (WHT), CN203 (WHT))
❶ Screw BVTP 3 x 10 (2pcs.)
❸ Open the YC-90 board
❷ Claw

2-8. INTERNAL VIEWS

—Top Side—



Upper Drum ass'y DZR-16-R
1-550-534-11
Drum ass'y DZH-16A-R
1-550-533-11

ACE head block ass'y
A-6761-129-A

Full erase head
1-543-647-11

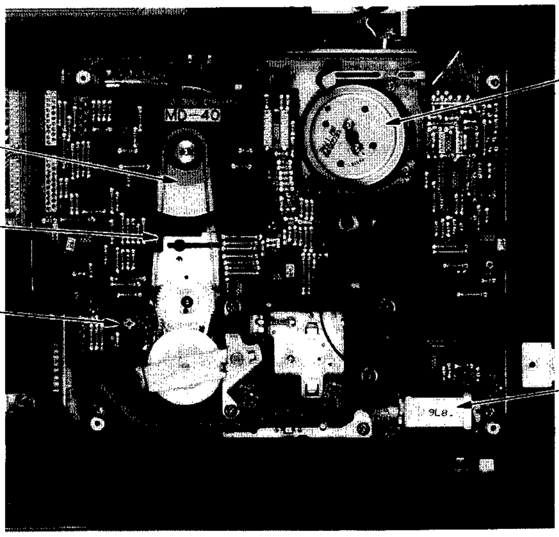
M904
Loading motor
X-3727-784-1

Q001
Tape end sensor
8-729-921-53

Q002
Tape top sensor
8-729-921-53

D001
Tape top/end LED
8-719-974-65

—Botoom Side—



M901
Drum motor

M902
Capstan motor
8-835-382-01

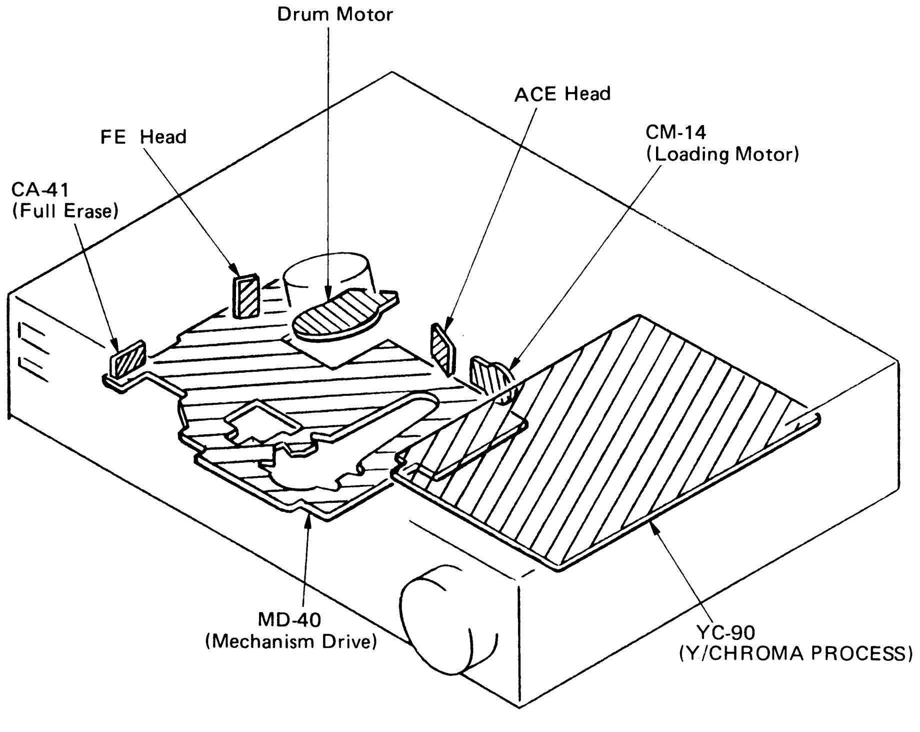
Timing belt
3-736-013-01

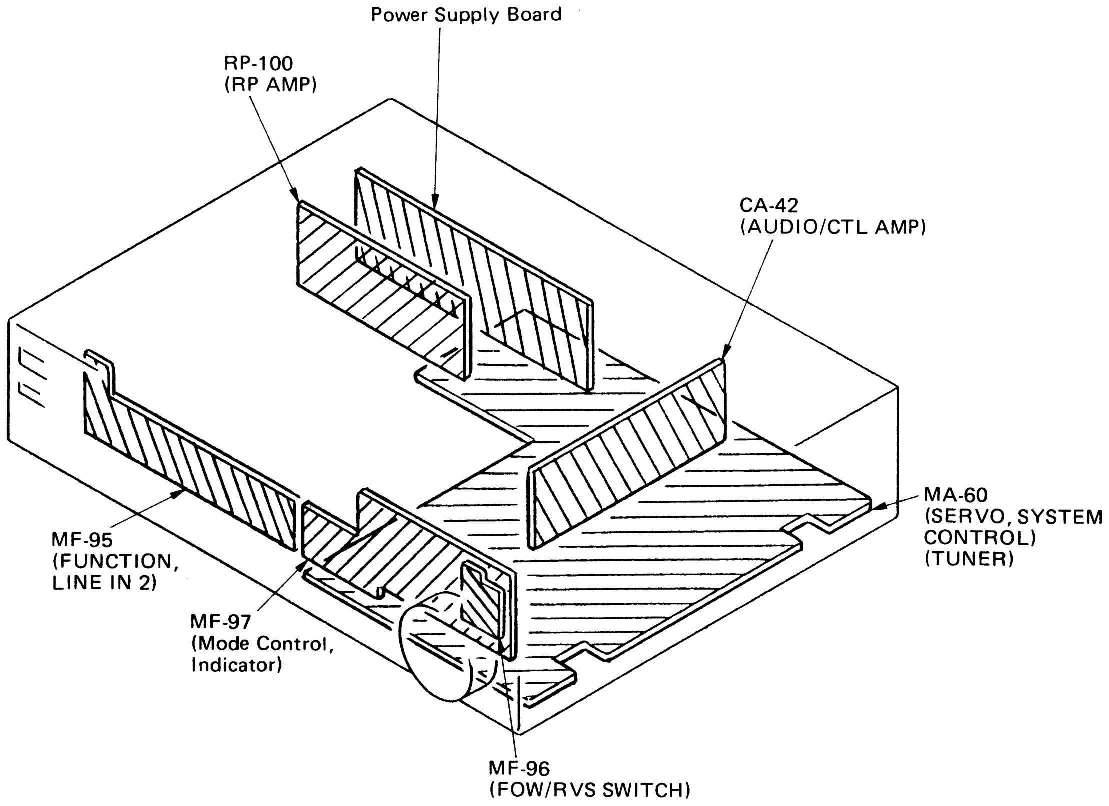
S001
Rotary switch
1-571-920-11

M903
CAM motor ass'y
X-3733-302-1

SECTION 3
DIAGRAMS

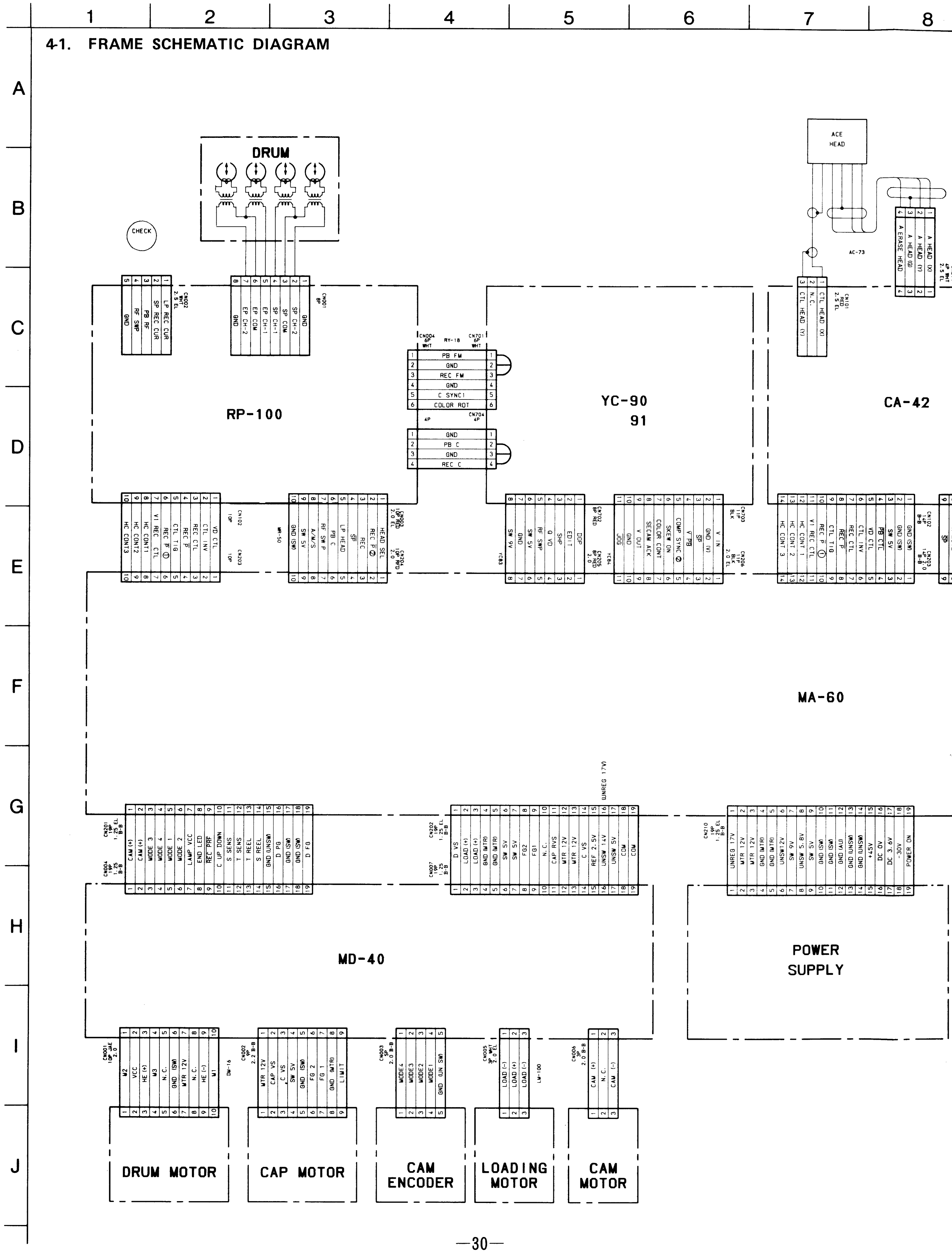
3-1. CIRCUIT BOARDS LOCATION


Drum Motor
ACE Head
FE Head
CM-14
(Loading Motor)
CA-41
(Full Erase)
MD-40
(Mechanism Drive)
YC-90
(Y/CHROMA PROCESS)


Power Supply Board
RP-100
(RP AMP)
CA-42
(AUDIO/CTL AMP)
MA-60
(SERVO, SYSTEM
CONTROL)
(TUNER)
MF-95
(FUNCTION,
LINE IN 2)
MF-97
(Mode Control,
Indicator)
MF-96
(FOW/RVS SWITCH)

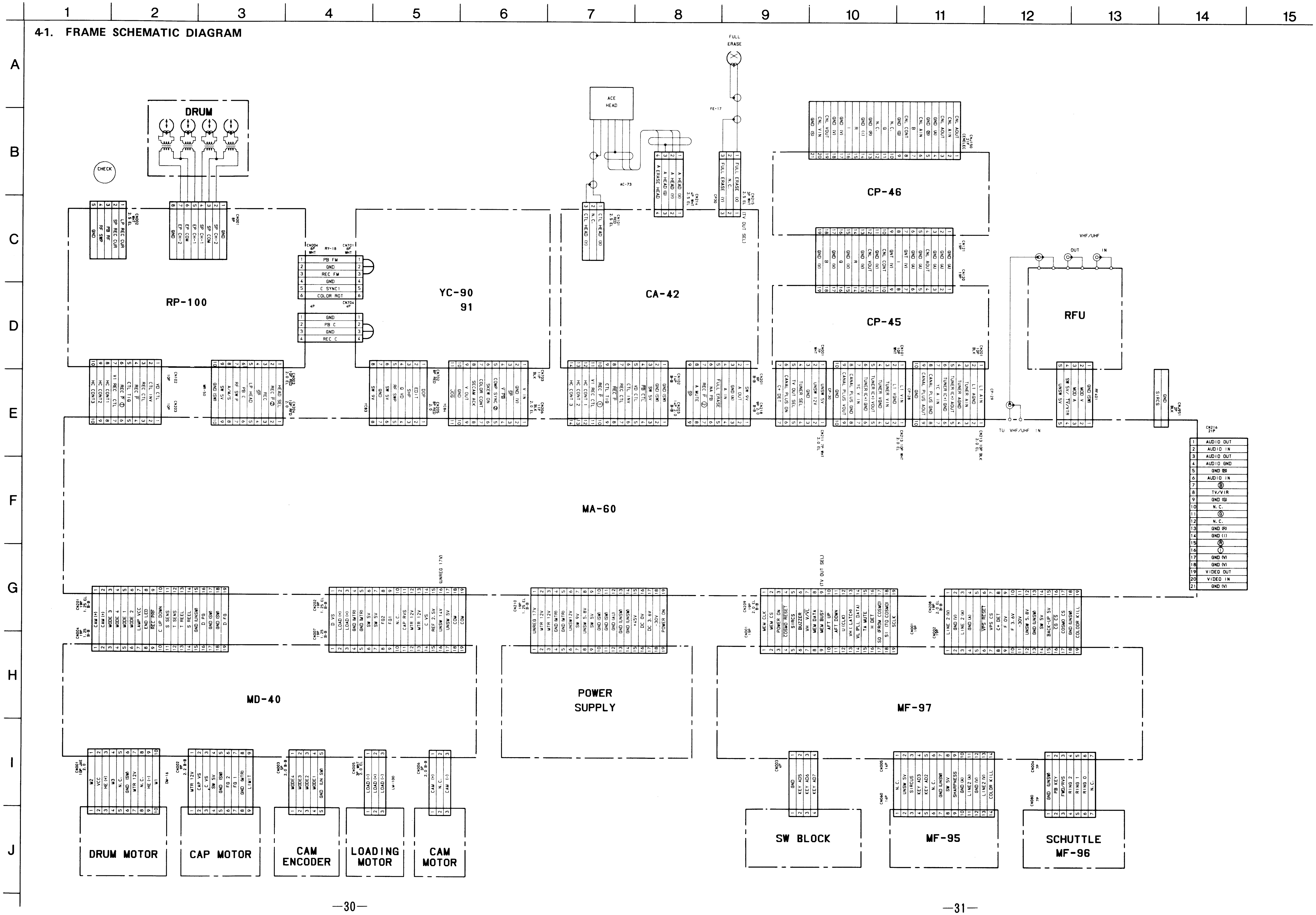
SECTION 4
PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-1. FRAME SCHEMATIC DIAGRAM


1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
J
DRUM
CHECK
ACE HEAD
RP-100
RY-18
PB FM
GND
REC FM
GND
C SYNC1
COLOR ROT
GND
PB C
GND
REC C
YC-90
91
CA-42
MA-60
MD-40
POWER
SUPPLY
DRUM MOTOR
CAP MOTOR
CAM
ENCODER
LOADING
MOTOR
CAM
MOTOR

SECTION 4
PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-1. FRAME SCHEMATIC DIAGRAM


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
A B C D E F G H I J
DRUM
CHECK
RP-100
YC-90
91
ACE HEAD
AC-73
FULL ERASE
FE-17
CA-42
CP-46
CP-45
VHF/UHF
OUT
IN
RFU
TU VHF/UHF IN
CN216 21P
AUDIO OUT
AUDIO IN
AUDIO OUT
AUDIO GND
AUDIO IN
TV/VTR
N.C.
VIDEO OUT
VIDEO IN
MA-60
MD-40
POWER SUPPLY
MF-97
DRUM MOTOR
CAP MOTOR
CAM ENCODER
LOADING MOTOR
CAM MOTOR
SW BLOCK
MF-95
SCHUTTLE MF-96

TEM

4-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAM

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For printed wiring boards:

- ○— : indicates a lead wire mounted on the component side.
- ●— : indicates a lead wire mounted on the printed side.
- ⊗ or ● : Through hole.
- ▩ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

Caution:

Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

For schematic diagram:

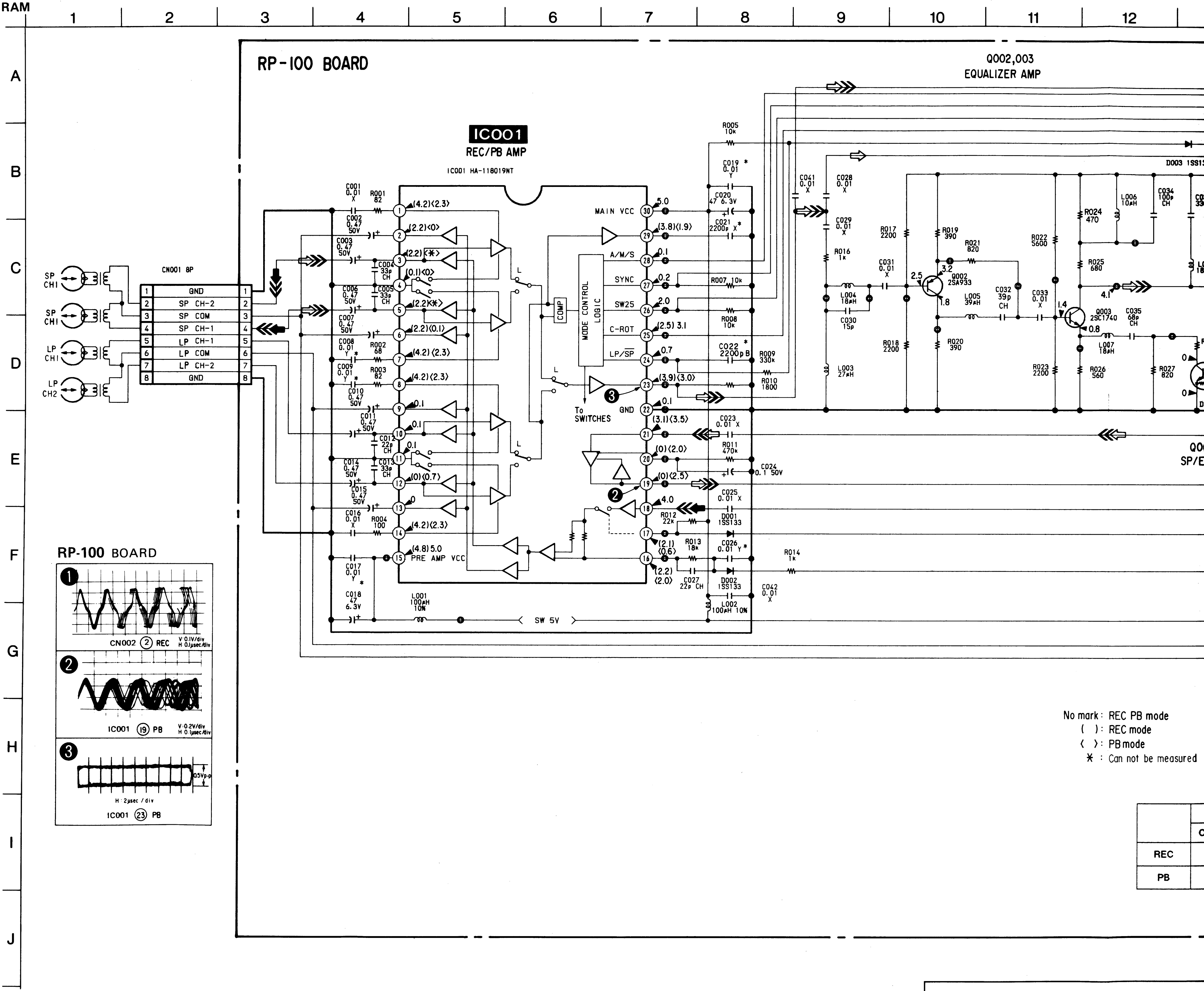
- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat the minus side of tantalum capacitor, because it is damaged by the heat.
- All resistors are in ohms, 1/4W (Chip resistors: 1/10W) unless otherwise noted.
  kΩ: 1000Ω, MΩ: 1000kΩ.
- All capacitors are in μF unless otherwise noted. pF: μμF 50V or less are not indicated except for electrolytics and tantalums.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⊟ : nonflammable resistor.
- ⊟ : fusible resistor.
- ▭ : panel designation.
- △ : internal component.
- ▭ : adjustment for repair.
- ━ : B+ line.
- ╍ : B– line.
- Voltages are dc between measurement points and ground unless otherwise noted.
- Readings are taken with a color-bar signal input.
- Readings are taken with a digital multimeter (DC10MΩ).
- Voltage variations may be noted due to normal production tolerances.
- ⇨ : IN/OUT direction of B line (+, –).
- Circled numbers refer to waveforms.

When indicating parts by reference number, please include the board name.

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

RP-100 (HEAD AMP) SCHEMATIC DIAGRAM

–Ref. No. RP-100 Board: 1,000 series–


1
2
3
4
5
6
7
8
9
10
11
12
A
B
C
D
E
F
G
H
I
J
RP-100 BOARD
IC001
REC/PB AMP
IC001 HA-118019NT
Q002,003
EQUALIZER AMP
SP CH1
SP CH1
LP CH1
LP CH2
CN001 8P
GND
SP CH-2
SP COM
SP CH-1
LP CH-1
LP COM
LP CH-2
GND
MAIN VCC
A/M/S
SYNC
SW25
C-ROT
LP/SP
GND
COMP
MODE CONTROL LOGIC
To SWITCHES
PRE AMP VCC
SW 5V
Q002 2SA933
Q003 2SC1740
D001 1SS133
D002 1SS133
D003 1SS133
L001 100μH 10%
L002 100μH 10%
L003 27μH
L004 18μH
L005 39μH
L006 10μH
L007 18μH
SP/E

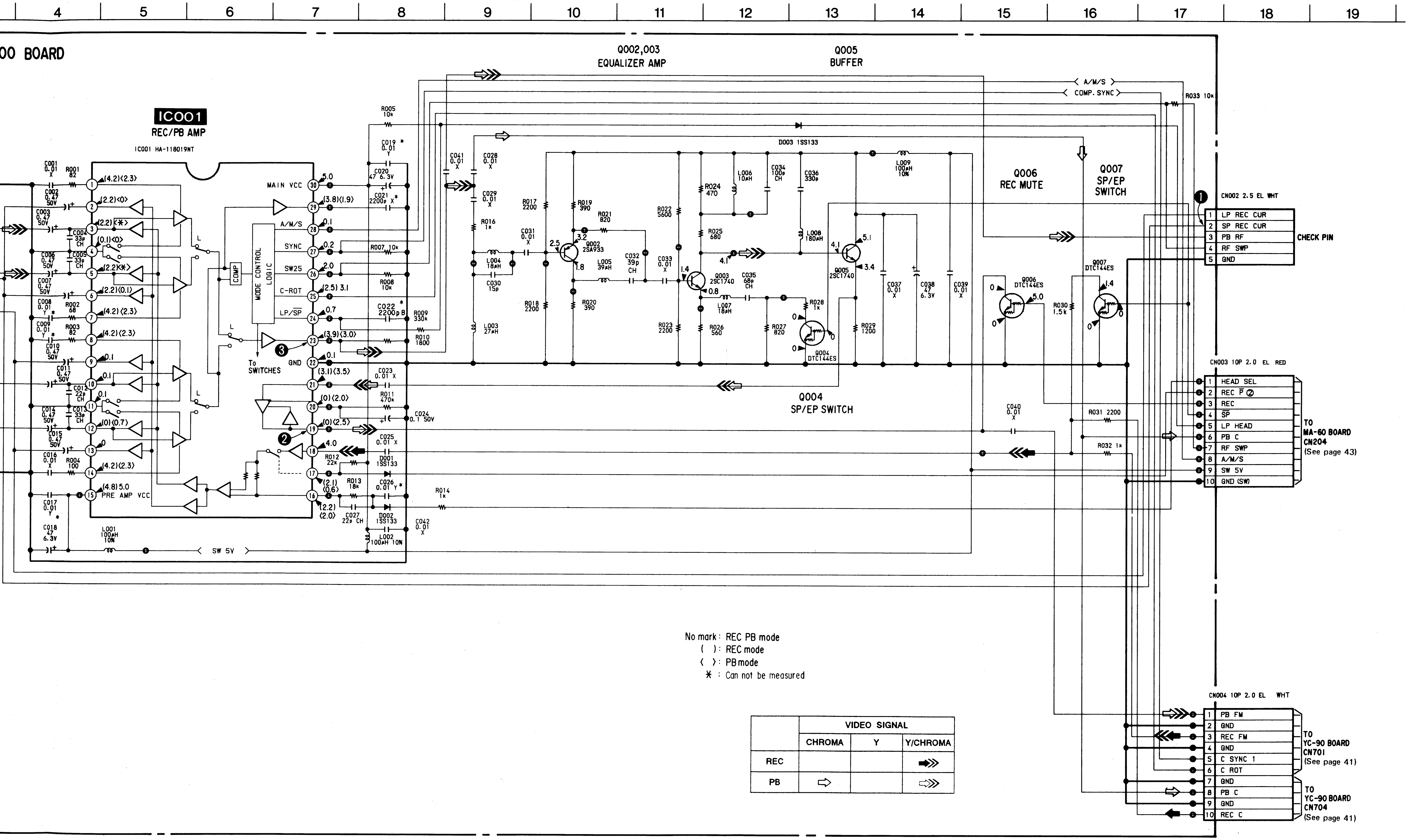
RP-100 BOARD

CN002 ② REC V 0.1V/div H 0.1μsec/div
IC001 ⑲ PB V 0.2V/div H 0.1μsec/div
IC001 ㉓ PB H 2μsec/div 0.5Vp-p

No mark : REC PB mode
( ) : REC mode
〈 〉 : PB mode
✱ : Can not be measured

	C
REC	
PB	

00 BOARD


4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
IC001
REC/PB AMP
IC001 HA-118019NT
Q002,003
EQUALIZER AMP
Q005
BUFFER
Q006
REC MUTE
Q007
SP/EP
SWITCH
Q004
SP/EP SWITCH
MAIN VCC
A/M/S
SYNC
SW25
C-ROT
LP/SP
GND
MODE CONTROL LOGIC
COMP
To SWITCHES
PRE AMP VCC
SW 5V
A/M/S
COMP. SYNC
D003 1SS133
R033 10k
CN002 2.5 EL WHT
1 LP REC CUR
2 SP REC CUR
3 PB RF
4 RF SWP
5 GND
CHECK PIN
CN003 10P 2.0 EL RED
1 HEAD SEL
2 REC P
3 REC
4 SP
5 LP HEAD
6 PB C
7 RF SWP
8 A/M/S
9 SW 5V
10 GND (SW)
TO MA-60 BOARD CN204 (See page 43)
CN004 10P 2.0 EL WHT
1 PB FM
2 GND
3 REC FM
4 GND
5 C SYNC 1
6 C ROT
7 GND
8 PB C
9 GND
10 REC C
TO YC-90 BOARD CN701 (See page 41)
TO YC-90 BOARD CN704 (See page 41)
Q002 2SA933
Q003 2SC1740
Q005 2SC1740
Q004 DTC144ES
Q006 DTC144ES
Q007 DTC144ES
D001 1SS133
D002 1SS133

No mark : REC PB mode
( ) : REC mode
〈 〉 : PB mode
＊ : Can not be measured

	VIDEO SIGNAL		
	CHROMA	Y	Y/CHROMA
REC			➡≫
PB	⇨		⇨≫

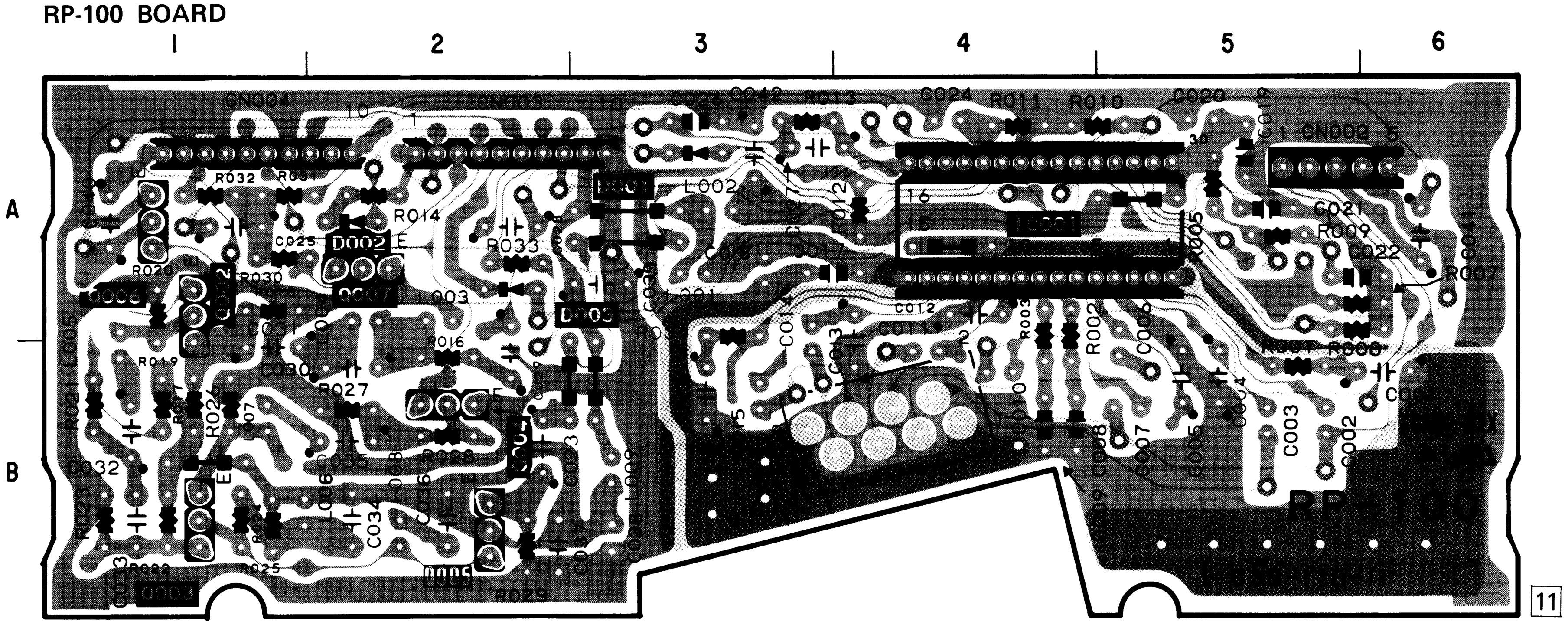
HEAD AMP HEAD AMP

RP-100 (HEAD AMP) PRINTED WIRING BOARD

–Ref. No. RP-100 Board: 1,000 series–

RP-100 BOARD

D001	A-3
D002	A-2
D003	B-3
IC001	A-4
Q002	A-1
Q003	B-1
Q004	B-2
Q005	B-2
Q006	A-1
Q007	A-2

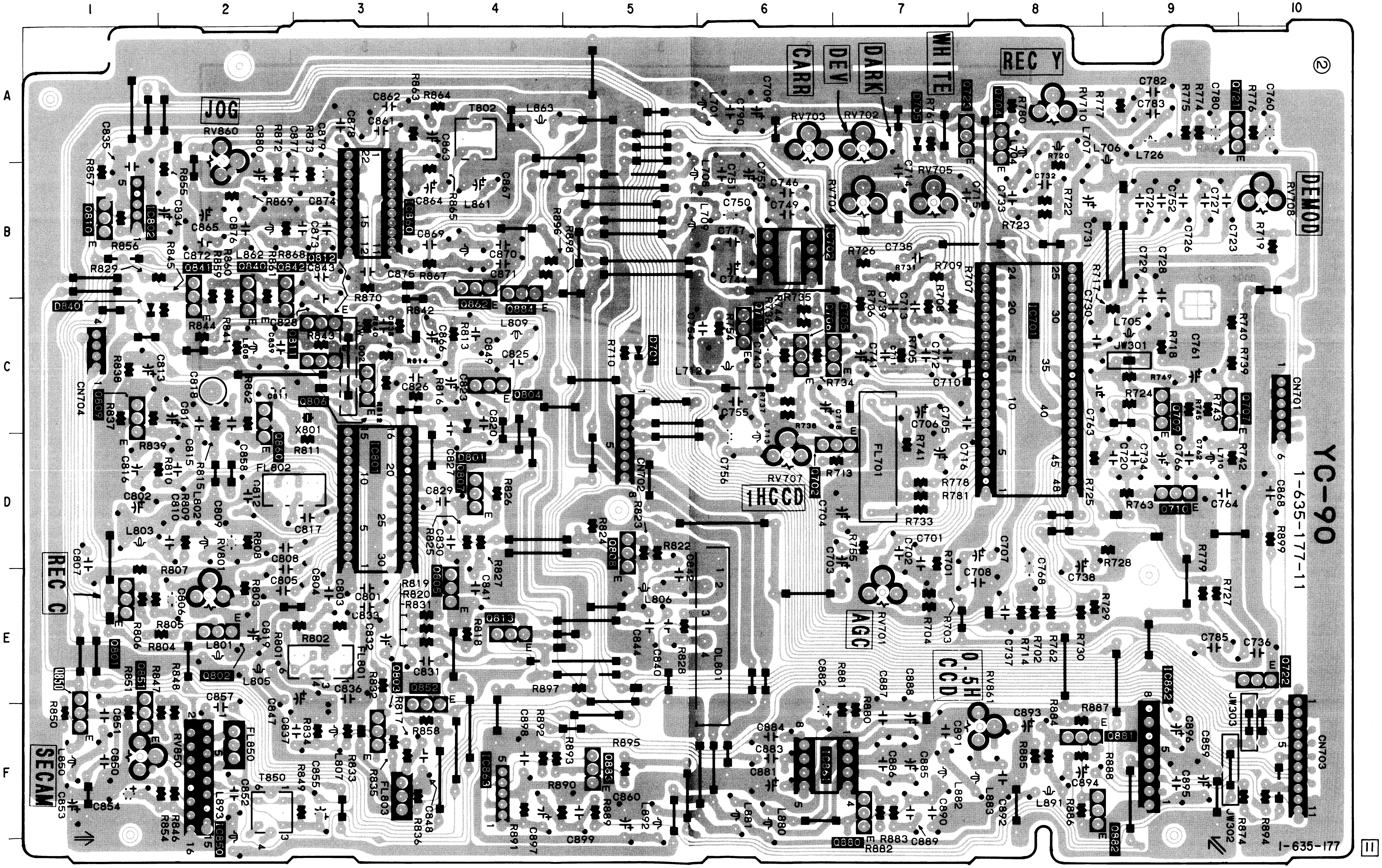

RP-100 BOARD
1
2
3
4
5
6
A
B
CN004
CN003
CN002
IC001
D001
D002
D003
Q002
Q003
Q004
Q005
Q006
Q007
L002
R014
R033
R009
R007
C022
C021
C024
R011
R010
C020
C019
R013
RP-100
11

HEAD AMP HEAD AMP

YC-90 (VIDEO) PRINTED WIRING BOARD

–Ref. No. YC-90 Board: 2,000 series–

YC-90 BOARD


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
JOG
CARR
DEV
DARK
WHITE
REC Y
DEMOD
REC C
SECAM
AGC
1HCCD
0.5H CCD
YC-90
1-635-177-11
1-635-177
IC701
IC801
IC802
IC803
IC850
IC860
IC861
IC862
IC863
IC702
CN701
CN702
CN703
CN704
FL701
FL801
FL802
FL803
FL850
DL801
RV701
RV702
RV703
RV704
RV705
RV707
RV708
RV710
RV801
RV850
RV860
RV861
T802
T850
X801
JW301
JW302
JW303
②
11

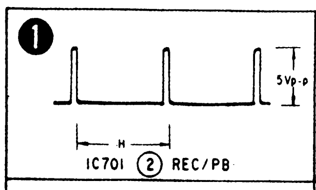
YC-90 (VIDEO) SCHEMATIC DIAGRAM

–Ref. No. YC-90 Board: 2,000 series–

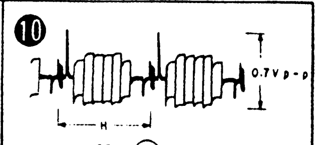
YC -90 BOARD

D701	C-5	Q723	A-7
D705	B-7	Q801	E-1
D801	D-4	Q803	E-3
		Q804	C-4
IC701	C-8	Q805	E-4
IC702	B-6	Q806	C-3
IC801	D-3	Q807	D-4
IC802	B-1	Q808	D-5
IC850	F-2	Q809	C-1
IC860	B-3	Q810	D-1
IC861	F-6	Q813	E-4
IC862	F-9	Q850	E-1
IC863	F-4	Q851	E-1
		Q852	E-4
Q702	D-6	Q860	D-2
Q704	A-8	Q862	B-4
Q705	C-7	Q880	F-7
Q706	C-6	Q881	F-9
Q710	D-9	Q882	F-9
Q711	C-6	Q883	F-5
Q721	A-9	Q884	B-4
Q722	E-10		

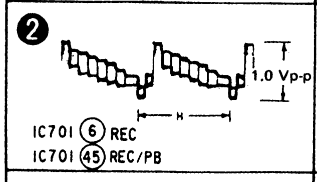
YC-90 BOARD

❶


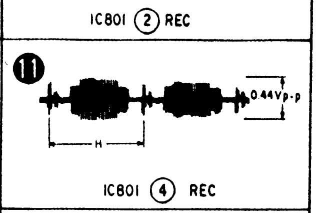
IC701 ② REC/PB

❿


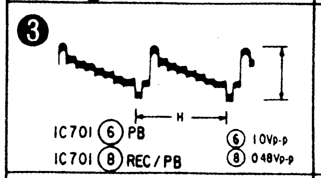
IC801 ② REC

❷


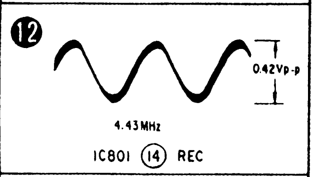
IC701 ⑥ REC
IC701 ㊺ REC/PB

⓫


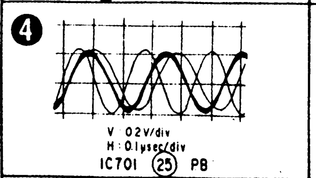
IC801 ④ REC

❸


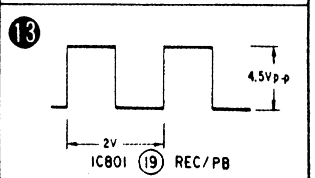
IC701 ⑥ PB
IC701 ⑧ REC/PB

⓬


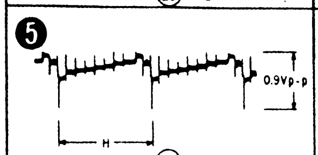
IC801 ⑭ REC

❹


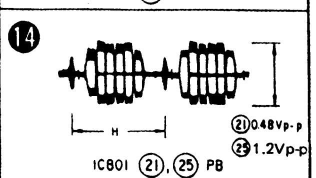
IC701 ㉕ PB

⓭


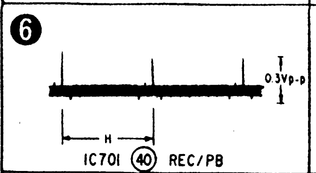
IC801 ⑲ REC/PB

❺


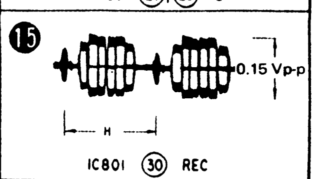
IC701 ㊲ PB

⓮


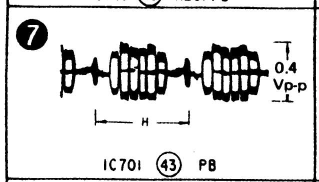
IC801 ㉑, ㉕ PB

❻


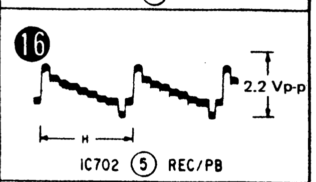
IC701 ㊵ REC/PB

⓯


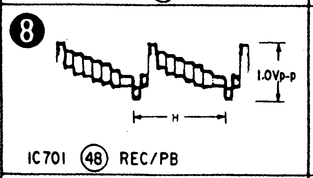
IC801 ㉚ REC

❼


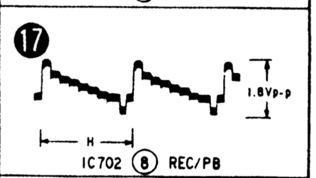
IC701 ㊸ PB

⓰


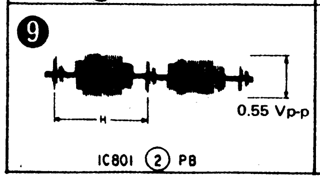
IC702 ⑤ REC/PB

❽


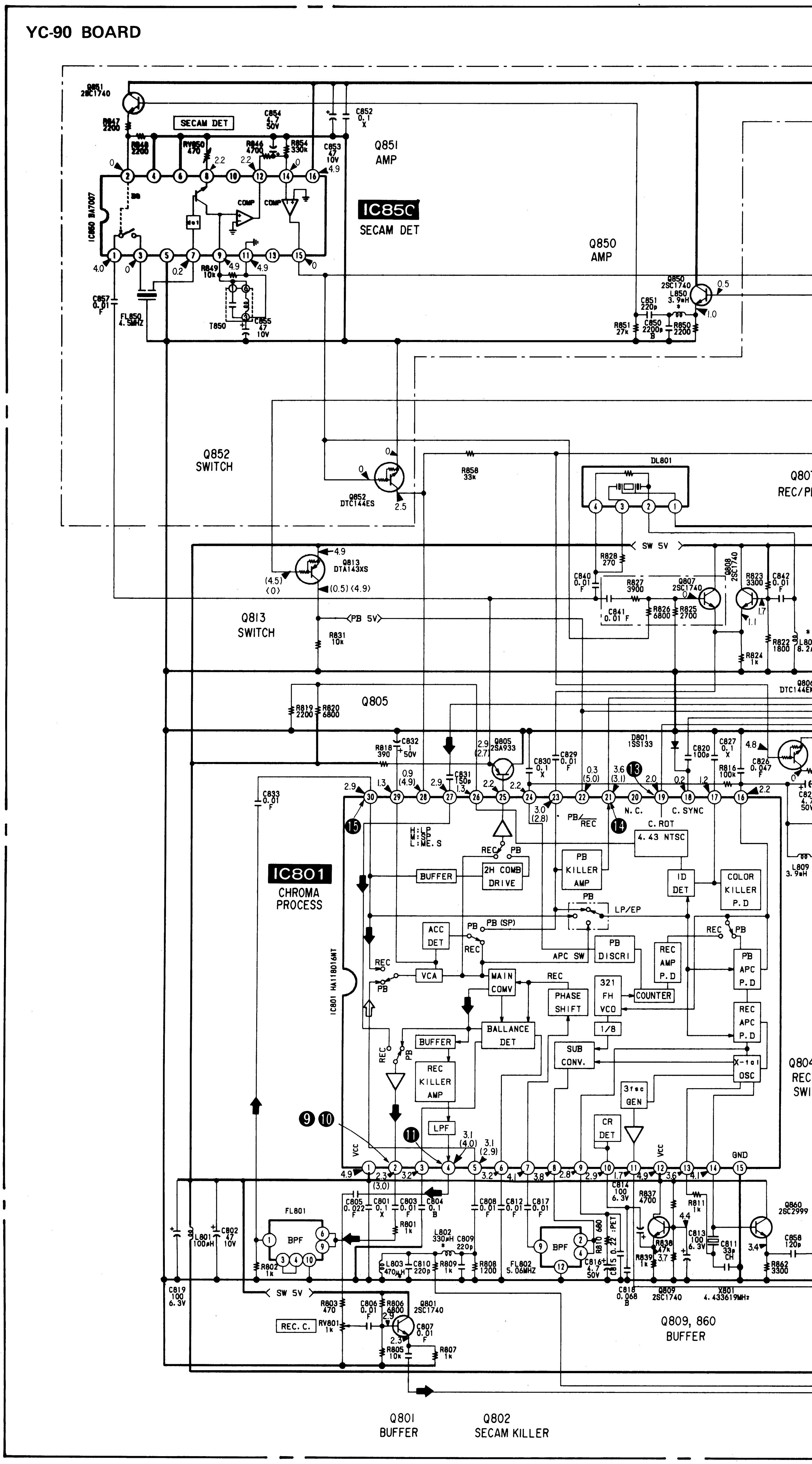
IC701 ㊽ REC/PB

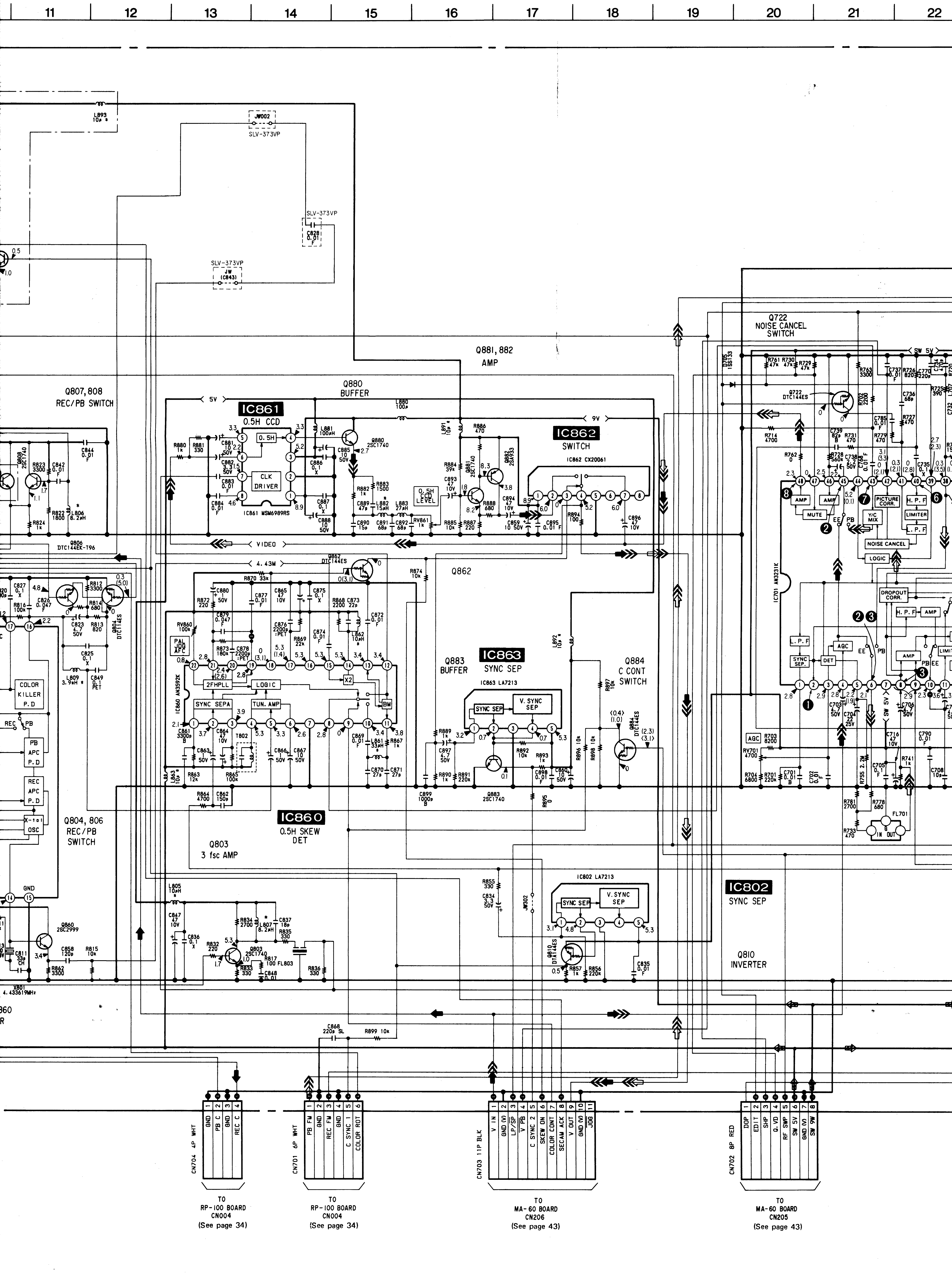
⓱


IC702 ⑧ REC/PB

❾


IC801 ② PB


YC-90 BOARD
Q851 2SC1740
SECAM DET
IC860 BA7007
Q851 AMP
IC850 SECAM DET
Q850 AMP
Q850 2SC1740
FL850 4.5MHz
T850
Q852 SWITCH
Q852 DTC144ES
R858 33k
DL801
Q813 DTA143XS
Q813 SWITCH
PB 5V
SW 5V
Q807 2SC1740
Q808 2SC1740
Q806 DTC144ES
Q805
Q805 2SA933
D801 1SS133
IC801 CHROMA PROCESS
IC801 HA11801GMT
H:LP
M:SP
L:ME.S
N.C.
C.ROT
C.SYNC
4.43 NTSC
BUFFER
2H COMB DRIVE
PB KILLER AMP
ID DET
COLOR KILLER P.D
LP/EP
PB (SP)
ACC DET
APC SW
PB DISCRI
REC AMP P.D
PB APC P.D
VCA
MAIN CONV
PHASE SHIFT
321 FH VCO
COUNTER
REC APC P.D
BALLANCE DET
1/8
SUB CONV.
X-tal OSC
REC KILLER AMP
3fsc GEN
LPF
CR DET
VCC
GND
FL801
BPF
L801 100μH
L802 330μH
L803 470μH
FL802 5.06MHz
X801 4.433619MHz
Q809 2SC1740
Q860 2SC2999
Q801 2SC1740
REC. C.
RV801 1k
Q809, 860 BUFFER
Q801 BUFFER
Q802 SECAM KILLER
Q804 REC SWI
Q807 REC/P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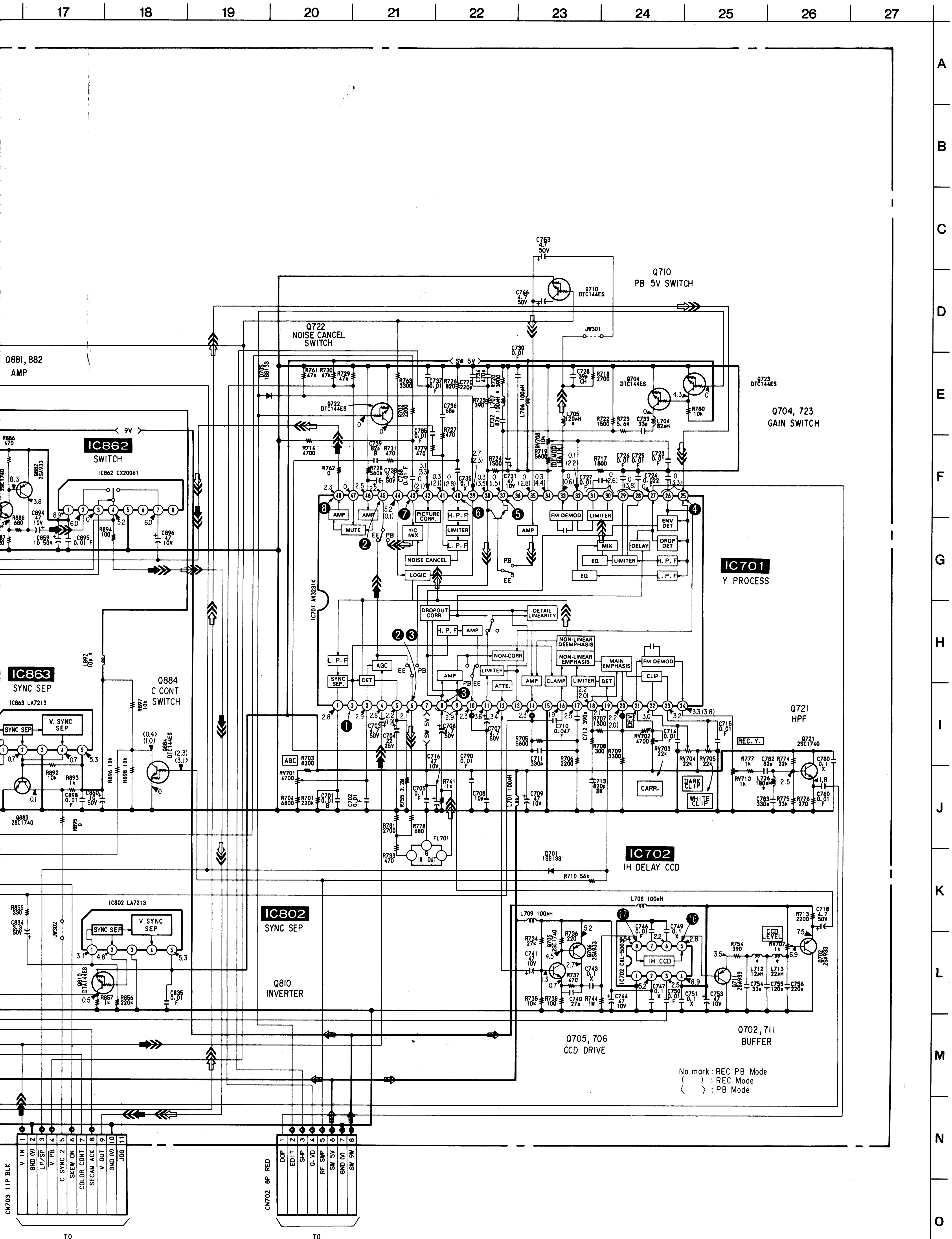
L893 10μ
JW002
SLV-373VP
SLV-373VP
C828 0.01 F
SLV-373VP
JW (C843)
Q807, 808
REC/PB SWITCH
Q880
BUFFER
Q881, 882
AMP
5V
9V
IC861
0.5H CCD
0.5H
CLK DRIVER
IC861 MSM6989RS
0.5H CCD LEVEL
IC862
SWITCH
IC862 CX20061
VIDEO
4.43M
Q862
Q806 DTC144EK-T96
COLOR KILLER P.D
PB APC P.D
REC APC P.D
X-tal OSC
Q804, 806
REC/PB
SWITCH
PAL JOG AFC
2FHPLL
LOGIC
SYNC SEPA
TUN. AMP
X2
BM
IC860 AN3592K
IC860
0.5H SKEW DET
Q803
3 fsc AMP
Q883
BUFFER
IC863
SYNC SEP
IC863 LA7213
SYNC SEP
V. SYNC SEP
Q883 2SC1740
Q884
C CONT
SWITCH
Q884 DTC144ES
Q860 2SC2999
X801 4.433619MHz
L805 10μH
Q803 2SC1740
FL803
JW302
IC802 LA7213
SYNC SEP
V. SYNC SEP
Q810 DTA144ES
IC802
SYNC SEP
Q810
INVERTER
Q722
NOISE CANCEL
SWITCH
Q722 DTC144ES
D705 1SS133
SW 5V
IC701 AN3231K
AMP
MUTE
PICTURE CORR.
H. P. F
LIMITER
L. P. F
Y/C MIX
NOISE CANCEL
LOGIC
DROPOUT CORR.
AGC
DET
SYNC SEP.
EE
PB
FL701
IN OUT
C868 220p SL
R899 10k
CN704 4P WHT
1 GND
2 PB C
3 GND
4 REC C
TO
RP-100 BOARD
CN004
(See page 34)
CN701 6P WHT
1 PB FM
2 GND
3 REC FM
4 GND
5 C SYNC 1
6 COLOR ROT
TO
RP-100 BOARD
CN004
(See page 34)
CN703 11P BLK
1 V IN
2 GND (V)
3 LP/SP
4 V PB
5 C SYNC 2
6 SKEW ON
7 COLOR CONT
8 SECAM ACK
9 V OUT
10 GND (V)
11 JOG
TO
MA-60 BOARD
CN206
(See page 43)
CN702 8P RED
1 DOP
2 EDIT
3 SHP
4 Q. VD
5 RF SWP
6 SW 5V
7 GND (V)
8 SW 9V
TO
MA-60 BOARD
CN205
(See page 43)


17
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27
A
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C
D
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H
I
J
K
L
M
N
O
P
Q710
PB 5V SWITCH
Q710 DTC144ES
Q722
NOISE CANCEL
SWITCH
Q722 DTC144ES
Q881, 882
AMP
Q704 DTC144ES
Q723 DTC144ES
Q704, 723
GAIN SWITCH
SW 5V
9V
IC862
SWITCH
IC862 CX20061
IC701
Y PROCESS
IC701 AN3231K
AMP
MUTE
PICTURE CORR.
Y/C MIX
H. P. F
LIMITER
L. P. F
NOISE CANCEL
LOGIC
FM DEMOD
MIX
DELAY
DROP DET
ENV DET
EQ
DROPOUT CORR.
DETAIL LINEARITY
NON-CORR
NON-LINEAR DEEMPHASIS
NON-LINEAR EMPHASIS
MAIN EMPHASIS
CLAMP
DET
CLIP
ATTE.
AGC
SYNC SEP.
EE
PB
IC863
SYNC SEP
IC863 LA7213
V. SYNC SEP
Q884
C CONT
SWITCH
Q884 DTC144ES
Q883 2SC1740
Q721
HPF
Q721 2SC1740
REC. Y.
DARK CLIP
WHITE CLIP
CARR.
IC702
1H DELAY CCD
IC702 CXL-5009
1H CCD
CCD LEVEL
FL701
IN OUT
D701 1SS133
D705 1SS133
JW301
JW302
IC802
SYNC SEP
IC802 LA7213
Q810
INVERTER
Q810 DTA144ES
Q705, 706
CCD DRIVE
Q702, 711
BUFFER
No mark : REC PB Mode
( ) : REC Mode
〈 〉 : PB Mode
CN703 11P BLK
V IN
GND (V)
LP/SP
V PB
C SYNC 2
SKEW ON
COLOR CONT
SECAM ACK
V OUT
GND (V)
JOG
CN702 8P RED
DOP
EDIT
SHP
Q. VD
RF SWP
SW 5V
GND (V)
SW 9W

TO
MA-60 BOARD
CN206
(See page 43)

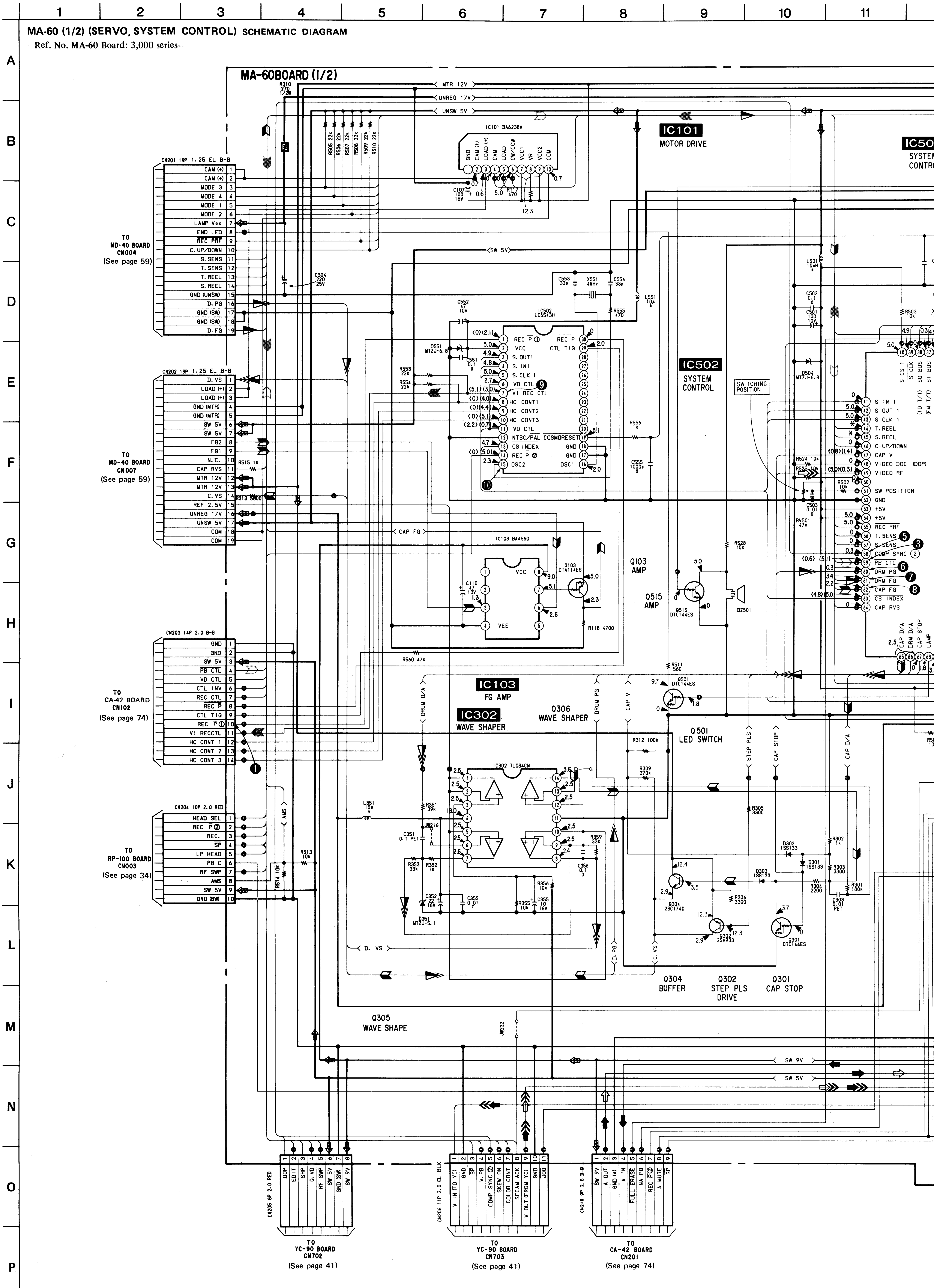
TO
MA-60 BOARD
CN205
(See page 43)

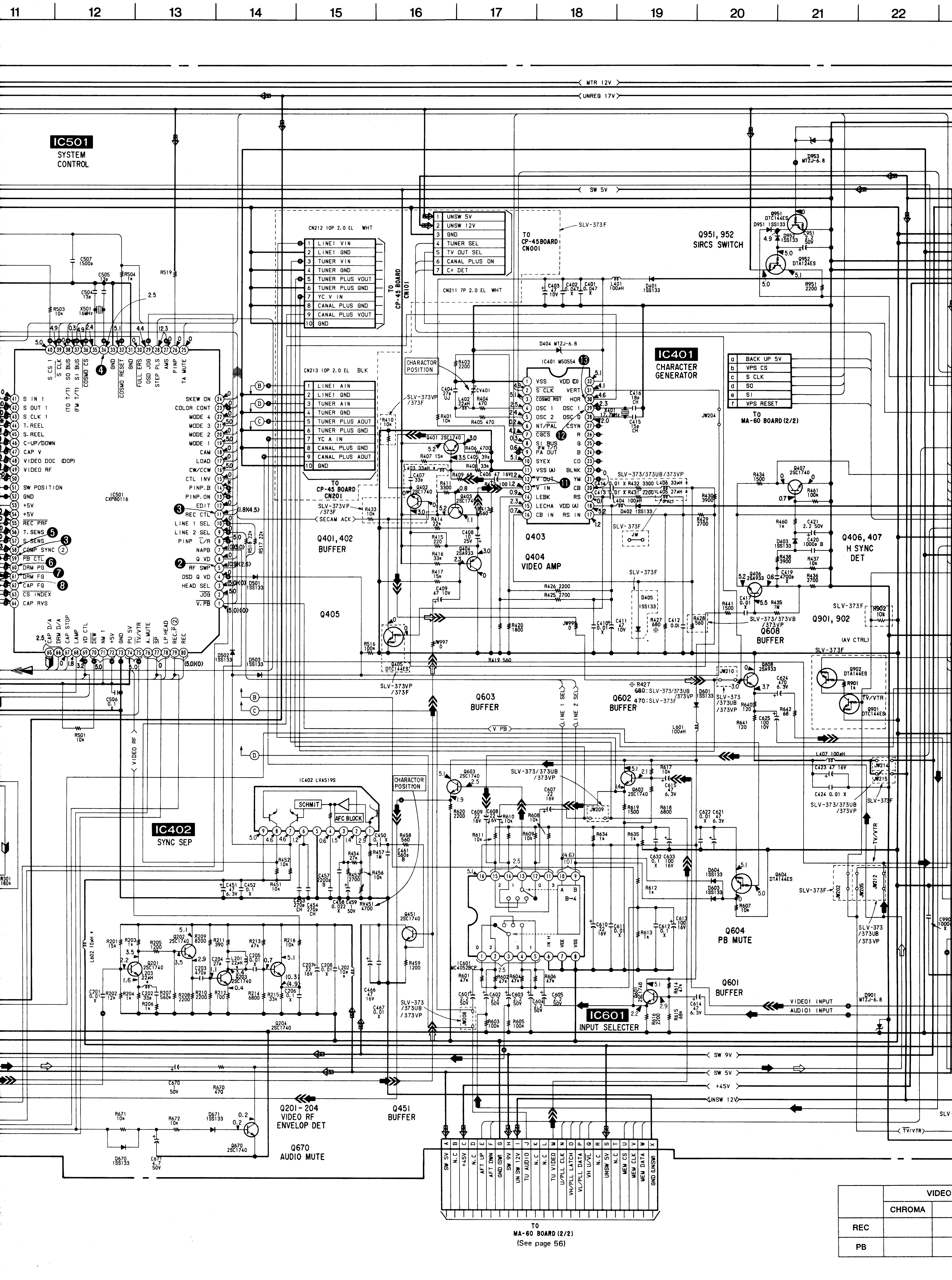
	VIDEO SIGNAL		
	CHROMA	Y	Y/CHROMA
REC	➡	➡»	➡»»
PB	⇨	⇨»	⇨»»

VIDEO VIDEO

MA-60 (1/2) (SERVO, SYSTEM CONTROL) SCHEMATIC DIAGRAM

–Ref. No. MA-60 Board: 3,000 series–


MA-60BOARD (1/2)
MTR 12V
UNREG 17V
UNSW 5V
SW 5V
IC101 BA6238A
IC101
MOTOR DRIVE
IC502
SYSTEM CONTROL
IC502 LC6543H
IC103 BA4560
IC103
FG AMP
IC302
WAVE SHAPER
IC302 TL084CN
Q103 AMP
Q515 AMP
Q306 WAVE SHAPER
Q501 LED SWITCH
Q304 BUFFER
Q302 STEP PLS DRIVE
Q301 CAP STOP
Q305 WAVE SHAPE
SWITCHING POSITION
BZ501
CN201 19P 1.25 EL B-B
CAM (+)
CAM (+)
MODE 3
MODE 4
MODE 1
MODE 2
LAMP Vcc
END LED
REC PRF
C.UP/DOWN
S.SENS
T.SENS
T.REEL
S.REEL
GND (UNSW)
D.PG
GND (SW)
GND (SW)
D.FG
TO MD-40 BOARD CN004 (See page 59)
CN202 19P 1.25 EL B-B
D.VS
LOAD (+)
LOAD (+)
GND (MTR)
GND (MTR)
SW 5V
SW 5V
FG2
FG1
N.C.
CAP RVS
MTR 12V
MTR 12V
C.VS
REF 2.5V
UNREG 17V
UNSW 5V
COM
COM
TO MD-40 BOARD CN007 (See page 59)
CN203 14P 2.0 B-B
GND
GND
SW 5V
PB CTL
VD CTL
CTL INV
REC CTL
REC P
CTL TIG
REC P①
VI RECCTL
HC CONT 1
HC CONT 2
HC CONT 3
TO CA-42 BOARD CN102 (See page 74)
CN204 10P 2.0 RED
HEAD SEL
REC P②
REC.
SP
LP HEAD
PB C
RF SWP
AMS
SW 5V
GND (SW)
TO RP-100 BOARD CN003 (See page 34)
CN205 8P 2.0 RED
DOP
EDIT
SHP
Q.VD
RF SWP
SW 5V
GND (SW)
SW 9V
TO YC-90 BOARD CN702 (See page 41)
CN206 11P 2.0 EL BLK
V IN (TO YC)
GND
SP
V.PB
COMP SYNC ②
SKEW ON
COLOR CONT
SECAM ACK
V OUT (FROM YC)
GND
JOG
TO YC-90 BOARD CN703 (See page 41)
CN218 8P 2.0 B-B
SW 9V
A OUT
GND (A)
A IN
FULL ERASE
NA PB
REC P②
A MUTE
SP
TO CA-42 BOARD CN201 (See page 74)
S IN 1
S OUT 1
S CLK 1
T.REEL
S.REEL
C-UP/DOWN
CAP V
VIDEO DOC (DOP)
VIDEO RF
SW POSITION
GND
+5V
+5V
REC PRF
T.SENS
S.SENS
COMP SYNC
PB CTL
DRM PG
DRM FG
CAP FG
CS INDEX
CAP RVS
CAP FG
DRUM D/A
DRUM PG
CAP V
STEP PLS
CAP STOP
CAP D/A
D.VS
D.PG
C.VS
AMS
SW 9V
SW 5V
JW232
SYSTEM CONTRO



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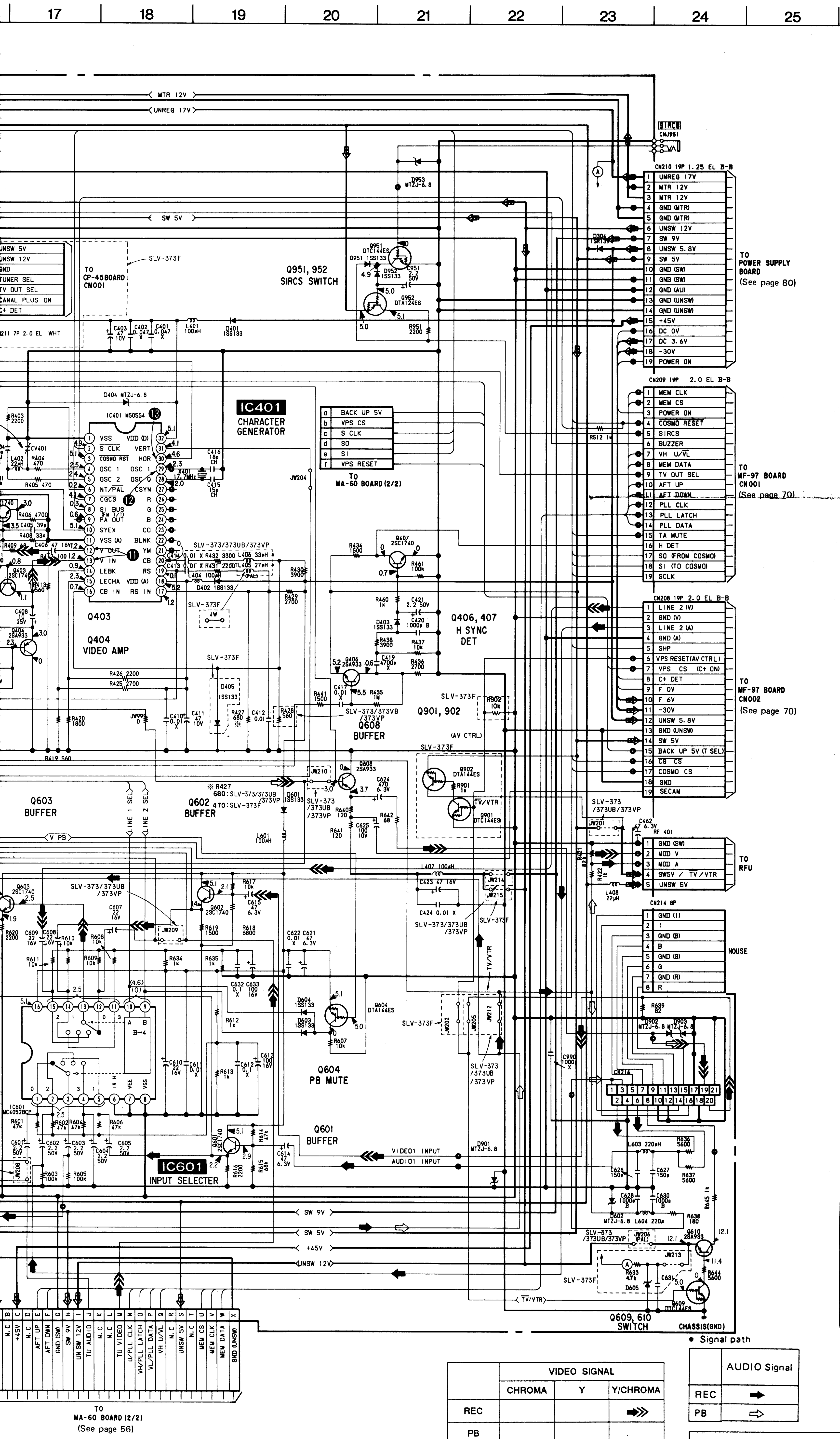
MTR 12V
UNREG 17V
SW 5V
IC501
SYSTEM CONTROL
IC501 CXP80116
CN212 10P 2.0 EL WHT
LINE1 VIN
LINE1 GND
TUNER VIN
TUNER GND
TUNER PLUS VOUT
TUNER PLUS GND
YC V IN
CANAL PLUS GND
CANAL PLUS VOUT
GND
TO CP-45 BOARD CN101
UNSW 5V
UNSW 12V
GND
TUNER SEL
TV OUT SEL
CANAL PLUS ON
C+ DET
TO CP-45BOARD CN001
SLV-373F
CN211 7P 2.0 EL WHT
CN213 10P 2.0 EL BLK
LINE1 AIN
LINE1 GND
TUNER AIN
TUNER GND
TUNER PLUS AOUT
TUNER PLUS GND
YC A IN
CANAL PLUS GND
CANAL PLUS AOUT
GND
TO CP-45 BOARD CN201
Q951, 952
SIRCS SWITCH
IC401
CHARACTER GENERATOR
IC401 M50554
CHARACTOR POSITION
BACK UP 5V
VPS CS
S CLK
SO
SI
VPS RESET
TO MA-60 BOARD (2/2)
Q401, 402
BUFFER
Q403
Q404
VIDEO AMP
Q405
Q406, 407
H SYNC DET
Q901, 902
(AV CTRL)
Q608
BUFFER
Q603
BUFFER
Q602
BUFFER
※ R427 680 : SLV-373/373UB/373VP 470 : SLV-373F
IC402
SYNC SEP
IC402 LVA519S
SCHMIT
AFC BLOCK
Q604
PB MUTE
Q601
BUFFER
IC601
INPUT SELECTER
IC601 MC4052BCP
VIDEO1 INPUT
AUDIO1 INPUT
Q201-204
VIDEO RF
ENVELOP DET
Q451
BUFFER
Q670
AUDIO MUTE
SW 9V
SW 5V
+45V
UNSW 12V
TV/VTR
SW 5V
N.C
+45V
AFT UP
AFT DWN
GND (SW)
SW 9V
UN SW 12V
TU AUDIO
N.C
N.C
TU VIDEO
U/PLL LATCH
VH/PLL CLK
VL/PLL DATA
VH U/VL
N.C
UNSW 5V
N.C
MEM CS
MEM CLK
MEM DATA
GND (UNSW)
TO MA-60 BOARD (2/2)
(See page 56)

	VIDEO
	CHROMA
REC	
PB	

SERVO, SYSTEM CONTROL



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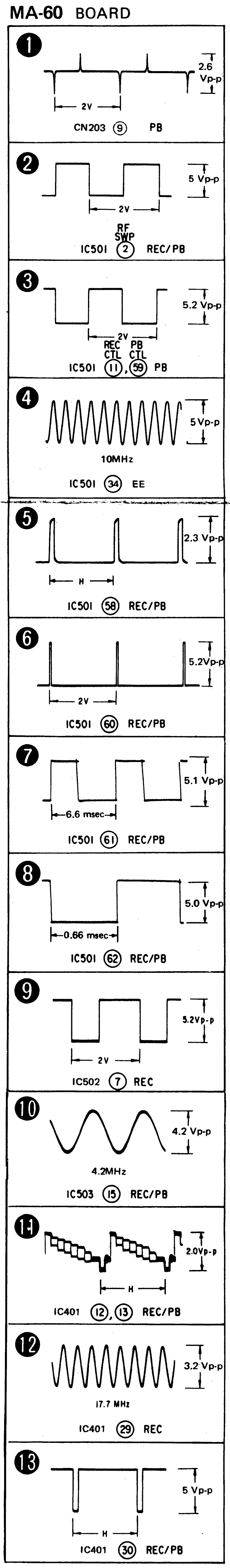
25
26
27
MTR 12V
UNREG 17V
SW 5V
SIRCS
CNJ951
CN210 19P 1.25 EL B-B
1 UNREG 17V
2 MTR 12V
3 MTR 12V
4 GND (MTR)
5 GND (MTR)
6 UNSW 12V
7 SW 9V
8 UNSW 5.8V
9 SW 5V
10 GND (SW)
11 GND (SW)
12 GND (AU)
13 GND (UNSW)
14 GND (UNSW)
15 +45V
16 DC 0V
17 DC 3.6V
18 -30V
19 POWER ON
TO POWER SUPPLY BOARD (See page 80)
Q951, 952 SIRCS SWITCH
D953 MTZJ-6.8
Q951 DTC144ES
D951 1SS133
D952 1SS133
C951 2.2 50V
Q952 DTA124ES
R951 2200
TO CP-45BOARD CN001
SLV-373F
UNSW 5V
UNSW 12V
GND
TUNER SEL
TV OUT SEL
CANAL PLUS ON
C+ DET
CN211 7P 2.0 EL WHT
IC401 CHARACTER GENERATOR
IC401 M50554
D404 MTZJ-6.8
VSS
S CLK
COSMO RST
OSC 1
OSC 2
NT/PAL
CBCS
SI BUS
PA OUT
SYEX
VSS (A)
V OUT
V IN
LEBK
LECHA
CB IN
VDD (D)
VERT
HOR
OSC 1
OSC 0
CSYN
R
G
B
CO
BLNK
YM
CB
RS
VDD (A)
RS IN
X401 17.7MHz
a BACK UP 5V
b VPS CS
c S CLK
d SO
e SI
f VPS RESET
TO MA-60 BOARD (2/2)
JW204
CN209 19P 2.0 EL B-B
1 MEM CLK
2 MEM CS
3 POWER ON
4 COSMO RESET
5 SIRCS
6 BUZZER
7 VH U/VL
8 MEM DATA
9 TV OUT SEL
10 AFT UP
11 AFT DOWN
12 PLL CLK
13 PLL LATCH
14 PLL DATA
15 TA MUTE
16 H DET
17 SO (FROM COSMO)
18 SI (TO COSMO)
19 SCLK
TO MF-97 BOARD CN001 (See page 70)
SLV-373/373UB/373VP
Q403
Q404 VIDEO AMP
Q406, 407 H SYNC DET
Q406 2SA933
Q407 2SC1740
D402 1SS133
D403 1SS133
D405 1SS133
SLV-373F
SLV-373/373VB/373VP
Q608 BUFFER
Q901, 902 (AV CTRL)
Q902 DTA144ES
Q901 DTC144ES
TV/VTR
CN208 19P 2.0 EL B-B
1 LINE 2 (V)
2 GND (V)
3 LINE 2 (A)
4 GND (A)
5 SHP
6 VPS RESET (AV CTRL)
7 VPS CS (C+ ON)
8 C+ DET
9 F 0V
10 F 6V
11 -30V
12 UNSW 5.8V
13 GND (UNSW)
14 SW 5V
15 BACK UP 5V (T SEL)
16 CB CS
17 COSMO CS
18 GND
19 SECAM
TO MF-97 BOARD CN002 (See page 70)
Q603 BUFFER
Q602 BUFFER
※ R427 680: SLV-373/373UB/373VP 470: SLV-373F
LINE 1 SEL
LINE 2 SEL
V PB
D601 1SS133
Q608 2SA933
L601 100μH
L407 100μH
RF 401
1 GND (SW)
2 MOD V
3 MOD A
4 SWSV / TV/VTR
5 UNSW 5V
TO RFU
CN214 8P
1 GND (I)
2 I
3 GND (B)
4 B
5 GND (G)
6 G
7 GND (R)
8 R
MOUSE
Q603 2SC1740
Q602 2SC1740
JW209
JW210
JW201
JW214
JW215
JW202
JW205
JW212
Q604 DTA144ES
Q604 PB MUTE
D604 1SS133
D603 1SS133
D902 MTZJ-6.8
D903 MTZJ-6.8
CN216
IC601 MC4052BCP
IC601 INPUT SELECTER
Q601 BUFFER
Q601 2SC1740
VIDEO1 INPUT
AUDIO1 INPUT
D901 MTZJ-6.8
L603 220μH
D602 MTZJ-6.8
L604 220μ
JW206 (PAL)
JW213
Q610 2SA933
Q609 DTC144ES
D605
Q609, 610 SWITCH
CHASSIS (GND)
SW 9V
SW 5V
+45V
UNSW 12V
TV/VTR
N.C
+45V
AFT UP
AFT DWN
GND (SW)
SW 9V
UN SW 12V
TU AUDIO
N.C
N.C
TU VIDEO
U/PLL CLK
VH/PLL LATCH
VL/PLL DATA
VH U/VL
N.C
UNSW 5V
N.C
MEM CS
MEM CLK
MEM DATA
GND (UNSW)
TO MA-60 BOARD (2/2) (See page 56)
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P



	VIDEO SIGNAL		
	CHROMA	Y	Y/CHROMA
REC			➡➡
PB			

● Signal path

	AUDIO Signal
REC	➡
PB	⇨

	REC	REC/PB	PB
Ref. signal	➤		▷

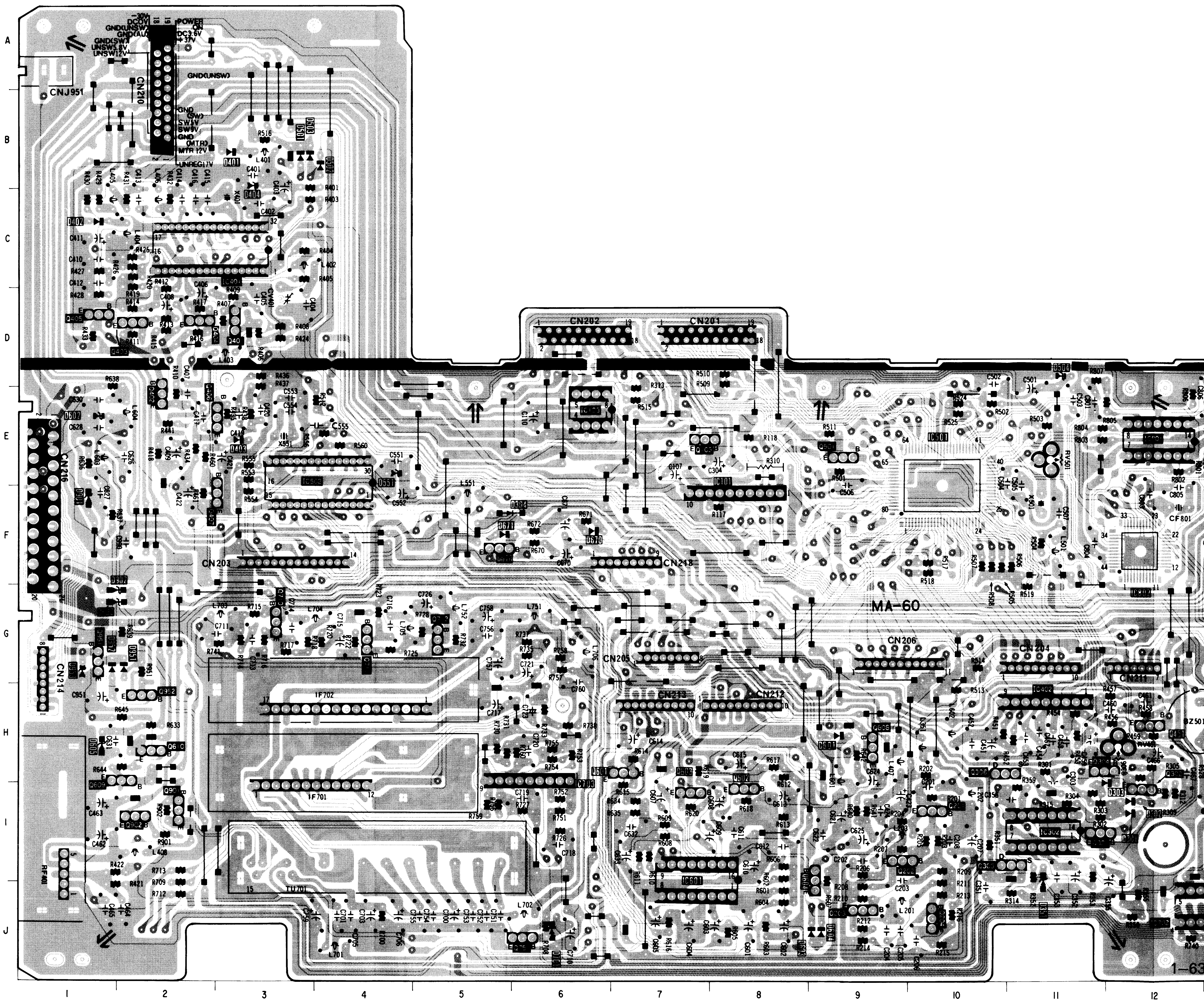
MA-60 (SERVO, SYSTEM CONTROL) PRINTED WIRING BOARD

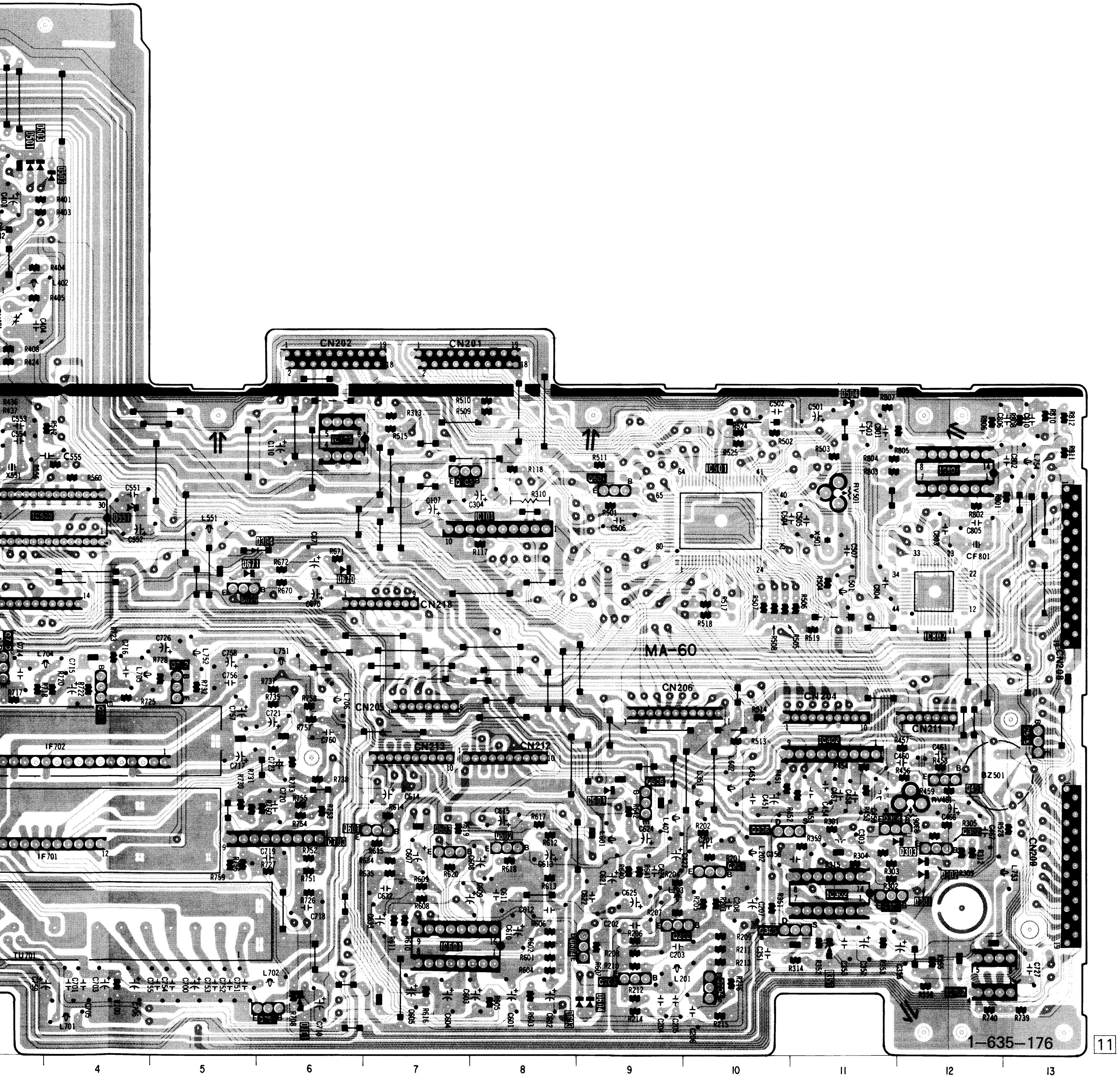
–Ref. No. MA-60 Board: 3,000 series–

MA-60 BOARD

D301	I-12
D302	I-12
D303	I-11
D304	F-5
D351	J-11
D401	B-3
D402	C-1
D403	E-3
D404	C-3
D501	B-3
D502	B-3
D503	B-3
D504	E-11
D551	F-4
D601	H-9
D602	E-1
D603	J-8
D604	J-9
D670	F-6
D671	F-5
D701	J-6
D901	F-1
D902	G-1
D903	G-1
D951	G-2
D952	G-1
D953	G-1
IC101	F-8
IC103	E-6
IC302	I-11
IC401	C-2
IC402	H-11
IC501	E-10
IC502	E-4
IC601	J-7
IC702	J-12
IC801	E-12
IC802	G-12
Q103	E-7
Q201	I-10
Q202	I-10
Q203	J-9
Q204	J-10
Q301	I-11
Q302	I-12
Q304	H-11
Q401	D-3
Q402	E-2
Q403	D-1
Q404	D-2
Q405	D-1
Q406	E-2
Q407	F-2
Q451	H-12
Q501	E-9
Q515	H-13
Q601	H-7
Q602	H-8
Q603	H-7
Q604	I-9
Q608	H-9
Q609	I-1
Q610	H-2
Q670	F-5
Q710	G-3
Q711	G-4
Q712	G-5
Q751	J-6
Q951	G-1
Q952	H-2

MA-60 BOARD


A
B
C
D
E
F
G
H
I
J
1
2
3
4
5
6
7
8
9
10
11
12
CNJ951
CN210
CN202
CN201
CN216
CN203
CN218
CN214
CN205
CN206
CN204
CN213
CN212
CN211
IF702
IF701
TU701
RF401
MA-60
IC401
IC501
IC502
IC601
IC101
IC302
IC402
IC801
IC802
GND(UNSW)
UNREG17V
POWER
DC3.6V
1-63


CN202
CN201
IC501
IC101
IC801
IC802
CN218
CN206
CN204
CN205
CN211
CN213
CN212
CN208
CN209
IF702
IF701
BZ501
CF801
RV501
X501
MA-60
1-635-176
11
4
5
6
7
8
9
10
11
12
13

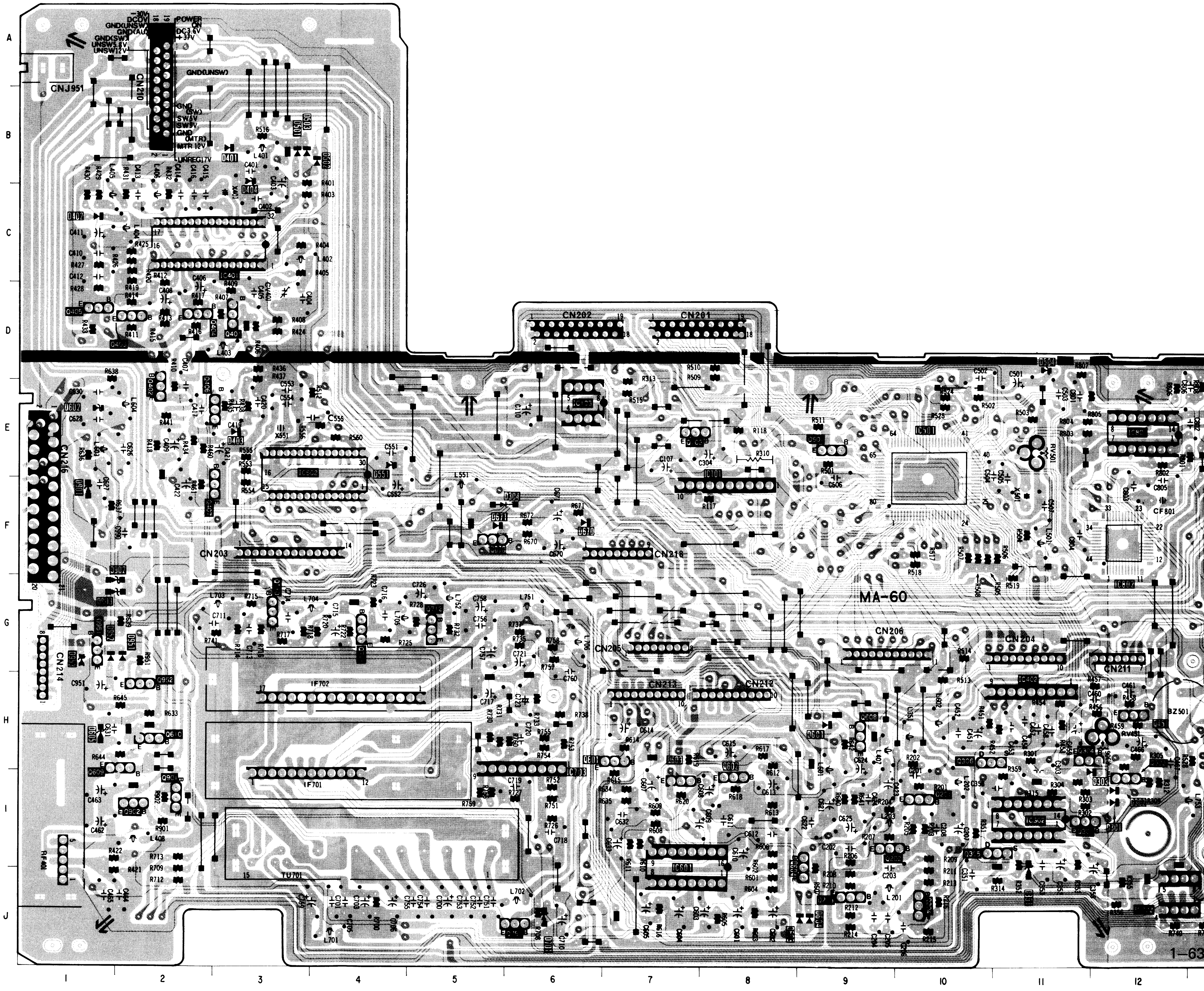
MA-60 (SERVO, SYSTEM CONTROL) PRINTED WIRING BOARD

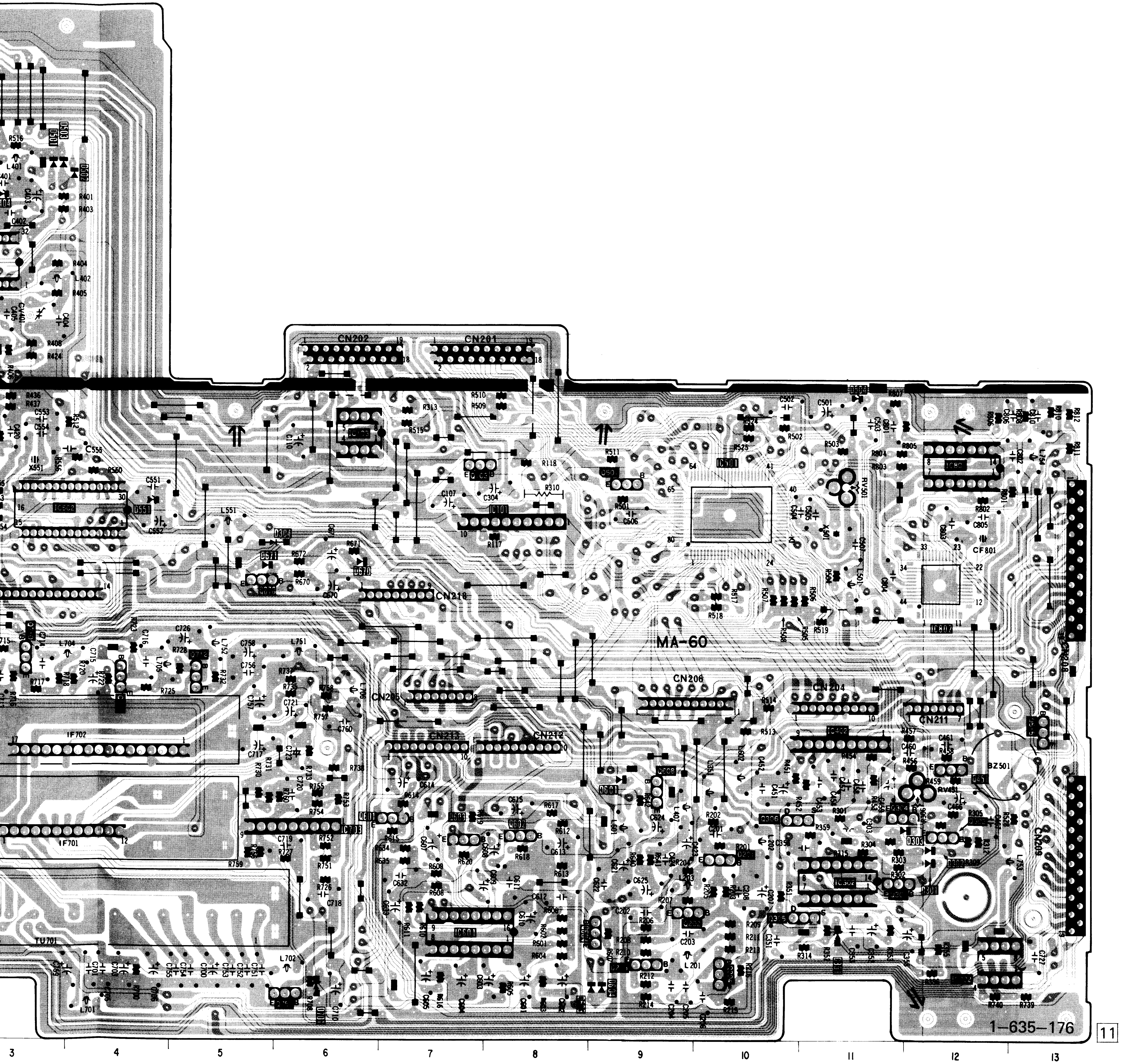
–Ref. No. MA-60 Board: 3,000 series–

MA-60 BOARD

D301	I-12	IC702	J-12
D302	I-12	IC801	E-12
D303	I-11	IC802	G-12
D304	F-5		
D351	J-11	Q103	E-7
D401	B-3	Q201	I-10
D402	C-1	Q202	I-10
D403	E-3	Q203	J-9
D404	C-3	Q204	J-10
D501	B-3	Q301	I-11
D502	B-3	Q302	I-12
D503	B-3	Q304	H-11
D504	E-11	Q401	D-3
D551	F-4	Q402	E-2
D601	H-9	Q403	D-1
D602	E-1	Q404	D-2
D603	J-8	Q405	D-1
D604	J-9	Q406	E-2
D670	F-6	Q407	F-2
D671	F-5	Q451	H-12
D701	J-6	Q501	E-9
D901	F-1	Q515	H-13
D902	G-1	Q601	H-7
D903	G-1	Q602	H-8
D951	G-2	Q603	H-7
D952	G-1	Q604	I-9
D953	G-1	Q608	H-9
		Q609	I-1
IC101	F-8	Q610	H-2
IC103	E-6	Q670	F-5
IC302	I-11	Q710	G-3
IC401	C-2	Q711	G-4
IC402	H-11	Q712	G-5
IC501	E-10	Q751	J-6
IC502	E-4	Q951	G-1
IC601	J-7	Q952	H-2

MA-60 BOARD


A
B
C
D
E
F
G
H
I
J
1
2
3
4
5
6
7
8
9
10
11
12
CNJ951
CN210
POWER
DC3.4V
+37V
GND(UNSW)
UNSW5.8V
UNSW12V
SW5V
SW9V
MTR 12V
UNREG17V
D401
D501
D502
D503
R516
L401
C401
C402
D404
D402
IC401
Q401
Q402
Q403
Q404
Q405
Q406
CN202
CN201
CN216
CN203
CN210
CN214
IC502
IC101
IC501
IC801
IC802
IF702
IF701
TU701
IC601
IC402
IC302
CN205
CN206
CN204
CN211
CN213
CN212
RF401
BZ501
CF801
X501
RV501
MA-60
1-63


MA-60
1-635-176
11
CN202
CN201
CN210
CN206
CN204
CN205
CN211
CN212
CN208
CN209
IF702
IF701
TU701
BZ501
RV501
RV451
CF801
X501
X551
3
4
5
6
7
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11
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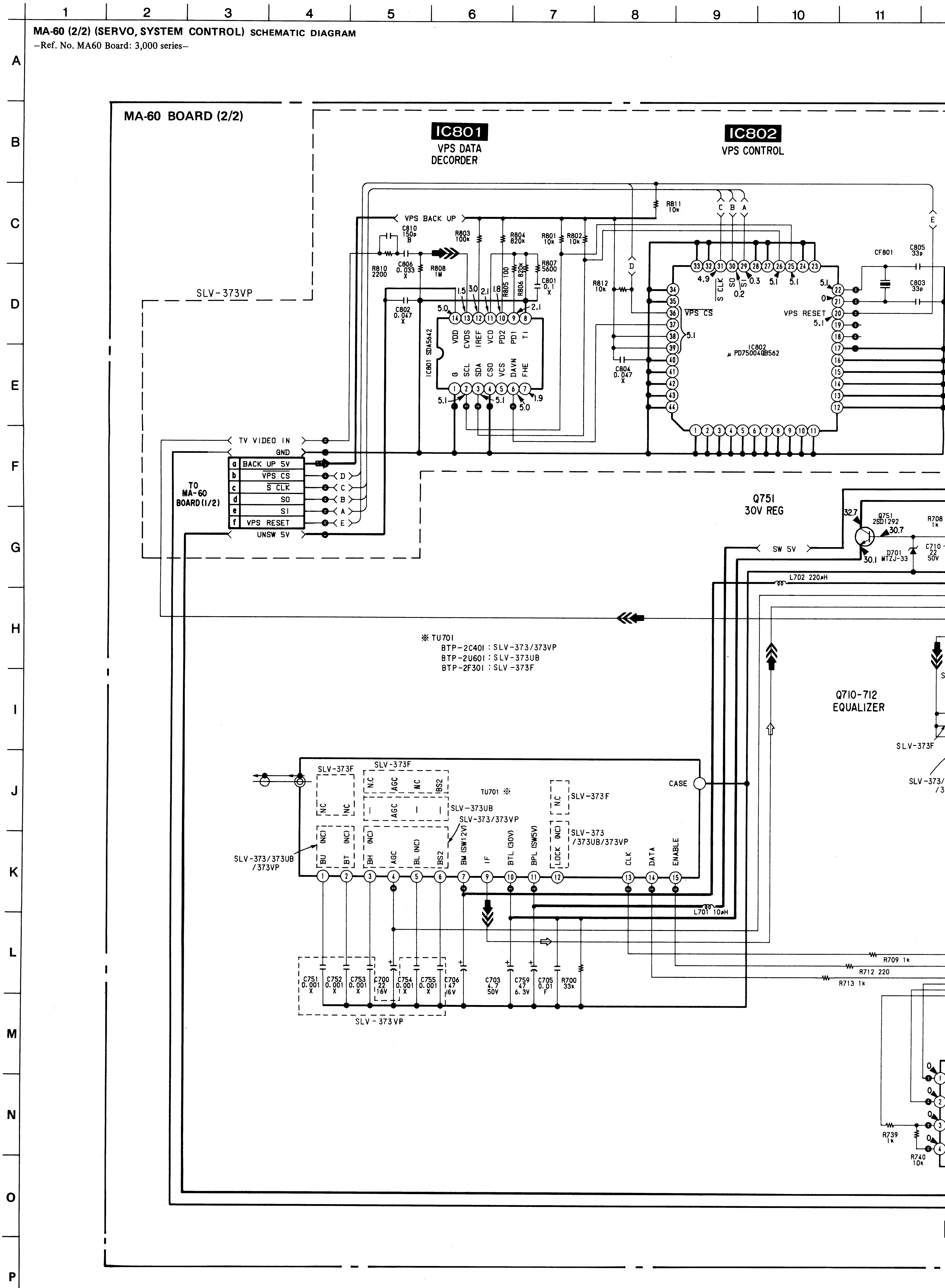
13

SERVO,SYSTEM CONTROL

SERVO,SYSTEM CONTROL

MA-60 (2/2) (SERVO, SYSTEM CONTROL) SCHEMATIC DIAGRAM

–Ref. No. MA60 Board: 3,000 series–


1
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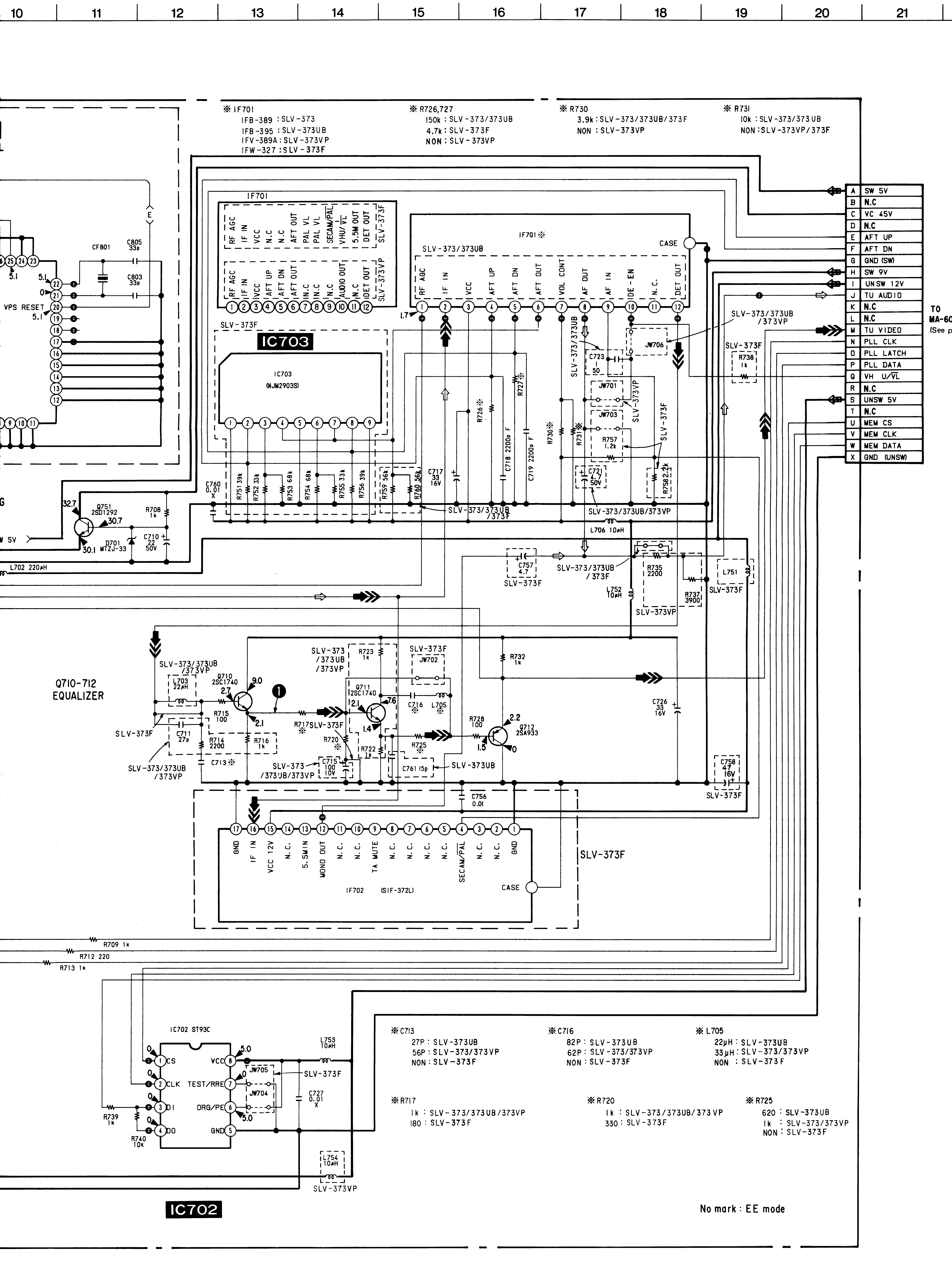
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
MA-60 BOARD (2/2)
IC801
VPS DATA DECORDER
IC802
VPS CONTROL
VPS BACK UP
C810 150p B
C806 0.033 X
R810 2200
R808 1M
R803 100k
R804 820k
R801 10k
R802 10k
R807 5600
R805 100
R806 820k
C801 0.1 X
C802 0.047 X
IC801 SDA5642
VDD
CVDS
IREF
VCO
PD2
PD1
TI
G
SCL
SDA
CSO
VCS
DAVN
FHE
R811 10k
R812 10k
C804 0.047 X
VPS CS
VPS RESET
S CLK
SO
SI
IC802 μPD75004GB562
CF801
C805 33p
C803 33p
SLV-373VP
TV VIDEO IN
GND
BACK UP 5V
VPS CS
S CLK
SO
SI
VPS RESET
UNSW 5V
TO MA-60 BOARD (1/2)
Q751 30V REG
Q751 2SD1292
R708 1k
D701 MTZJ-33
C710 22 50V
SW 5V
L702 220μH
※TU701
BTP-2C401 : SLV-373/373VP
BTP-2U601 : SLV-373UB
BTP-2F301 : SLV-373F
Q710-712 EQUALIZER
SLV-373F
SLV-373UB
SLV-373/373VP
SLV-373/373UB/373VP
TU701 ※
CASE
BU
BT
BH
AGC
BL (NC)
BS2
BM (SW12V)
IF
BTL (30V)
BPL (SW5V)
LOCK (NC)
CLK
DATA
ENABLE
L701 10μH
R709 1k
R712 220
R713 1k
C751 0.001 X
C752 0.001 X
C753 0.001 X
C700 22 16V
C754 0.001 X
C755 0.001 X
C706 47 16V
C703 4.7 50V
C759 47 6.3V
C705 0.01 F
R700 33k
R739 1k
R740 10k

SERVO, SYSTEM CONTROL SERVO, SYSTEM CONTROL


10
11
12
13
14
15
16
17
18
19
20
21
IF701
RF AGC
IF IN
VCC
N.C
AFT UP
AFT DN
AFT OUT
PAL VL
SECAM/PAL
VHU/VL
5.5M OUT
DET OUT
SLV-373F
SLV-373VP
AUDIO OUT
IF701※
SLV-373/373UB
CASE
VOL CONT
AF OUT
AF IN
DE-EN
IC703
IC703
(NJM2903S)
SLV-373F
SLV-373/373UB
SLV-373/373VP
JW706
JW701
JW703
C723 1 50
R757 1.2k
C721 4.7 50V
R738 1k
R758 2.2k
SLV-373/373UB/373VP
SLV-373/373UB /373F
L706 10μH
R726※
R727※
R730※
R731※
C717 33 16V
C718 2200p F
C719 2200p F
R751 39k
R752 33k
R753 68k
R754 68k
R755 33k
R756 39k
R759 56k
R760 56k
C760 0.01 X
CF801
C805 33p
C803 33p
VPS RESET
5.1
E
Q751 2SD1292
32.7
30.7
30.1
R708 1k
D701 MTZJ-33
C710 22 50V
W 5V
L702 220μH
C757 4.7
SLV-373/373UB / 373F
R735 2200
L751
L752 10μH
R737 3900
SLV-373VP
Q710-712 EQUALIZER
SLV-373/373UB /373VP
L703 22μH
Q710 2SC1740
9.0
2.7
2.1
R715 100
C711 27p
R714 2200
R716 1k
C713※
SLV-373 /373UB /373VP
R723 1k
JW702
Q711 2SC1740
2.1
7.6
1.4
C716※
L705※
R717※ SLV-373F
R720※
R722 1k
R725※
C715 100 10V
C761 15p
SLV-373UB
R728 100
Q712 2SA933
2.2
1.5
0
R732 1k
C726 33 16V
C758 47 16V
C756 0.01
GND
IF IN
VCC 12V
N.C.
5.5MIN
MONO OUT
TA MUTE
SECAM/PAL
IF702 (SIF-372L)
CASE
SLV-373F
R709 1k
R712 220
R713 1k
IC702 ST93C
CS
CLK
DI
DO
VCC
TEST/RRE
ORG/PE
GND
5.0
0
JW705
JW704
L753 10μH
C727 0.01 X
R739 1k
R740 10k
L754 10μH
IC702
A SW 5V
B N.C
C VC 45V
D N.C
E AFT UP
F AFT DN
G GND (SW)
H SW 9V
I UNSW 12V
J TU AUDIO
K N.C
L N.C
M TU VIDEO
N PLL CLK
O PLL LATCH
P PLL DATA
Q VH U/VL
R N.C
S UNSW 5V
T N.C
U MEM CS
V MEM CLK
W MEM DATA
X GND (UNSW)
TO
MA-60
(See p

※ IF701
IFB-389 : SLV-373
IFB-395 : SLV-373UB
IFV-389A : SLV-373VP
IFW-327 : SLV-373F

※ R726,727
150k : SLV-373/373UB
4.7k : SLV-373F
NON : SLV-373VP

※ R730
3.9k : SLV-373/373UB/373F
NON : SLV-373VP

※ R731
10k : SLV-373/373UB
NON : SLV-373VP/373F

※ C713
27P : SLV-373UB
56P : SLV-373/373VP
NON : SLV-373F

※ C716
82P : SLV-373UB
62P : SLV-373/373VP
NON : SLV-373F

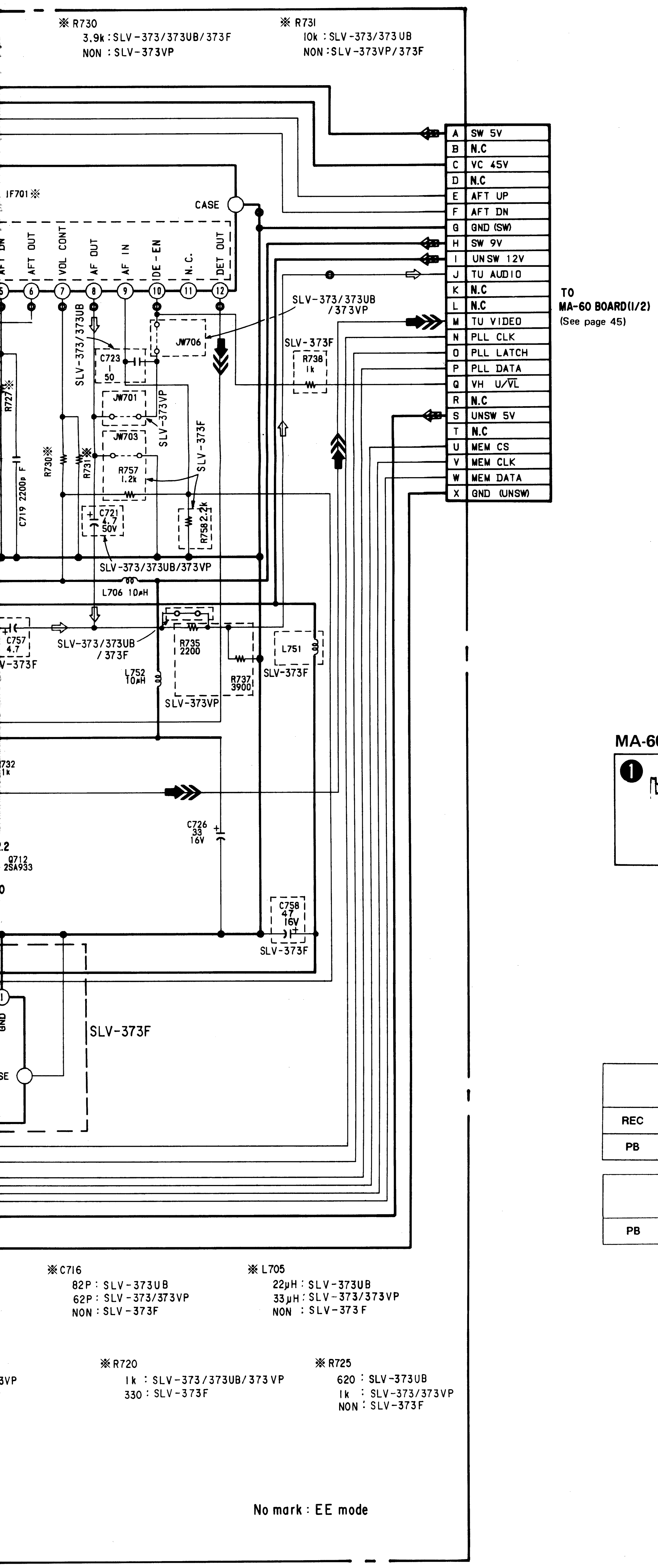
※ L705
22μH : SLV-373UB
33μH : SLV-373/373VP
NON : SLV-373F

※ R717
1k : SLV-373/373UB/373VP
180 : SLV-373F

※ R720
1k : SLV-373/373UB/373VP
330 : SLV-373F

※ R725
620 : SLV-373UB
1k : SLV-373/373VP
NON : SLV-373F

No mark : EE mode


17
18
19
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22
23
24
25
26
27
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
IF701※
CASE
AFT OUT
VOL CONT
AF OUT
AF IN
IDE-EN
N.C.
DET OUT
6
7
8
9
10
11
12
A SW 5V
B N.C
C VC 45V
D N.C
E AFT UP
F AFT DN
G GND (SW)
H SW 9V
I UNSW 12V
J TU AUDIO
K N.C
L N.C
M TU VIDEO
N PLL CLK
O PLL LATCH
P PLL DATA
Q VH U/VL
R N.C
S UNSW 5V
T N.C
U MEM CS
V MEM CLK
W MEM DATA
X GND (UNSW)
TO
MA-60 BOARD(1/2)
(See page 45)
SLV-373/373UB /373VP
SLV-373/373UB
JW706
C723 50
SLV-373F
R738 1k
JW701
JW703
SLV-373VP
SLV-373F
R727※
R730※
R731※
R757 1.2k
C719 2200p F
C721 4.7 50V
R758 2.2k
SLV-373/373UB/373VP
L706 10μH
C757 4.7
SLV-373F
SLV-373/373UB /373F
R735 2200
L752 10μH
R737 3900
SLV-373VP
L751
SLV-373F
R732 1k
C726 33 16V
Q712 2SA933
C758 47 16V
SLV-373F
GND
SLV-373F

※ R730
3.9k : SLV-373/373UB/373F
NON : SLV-373VP

※ R731
10k : SLV-373/373UB
NON : SLV-373VP/373F

※ C716
82P : SLV-373UB
62P : SLV-373/373VP
NON : SLV-373F

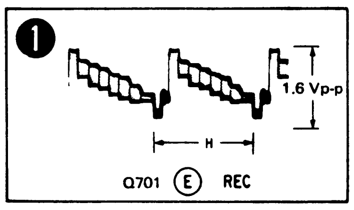
※ L705
22μH : SLV-373UB
33μH : SLV-373/373VP
NON : SLV-373F

※ R720
1k : SLV-373/373UB/373VP
330 : SLV-373F

※ R725
620 : SLV-373UB
1k : SLV-373/373VP
NON : SLV-373F

No mark : EE mode

MA-60 BOARD



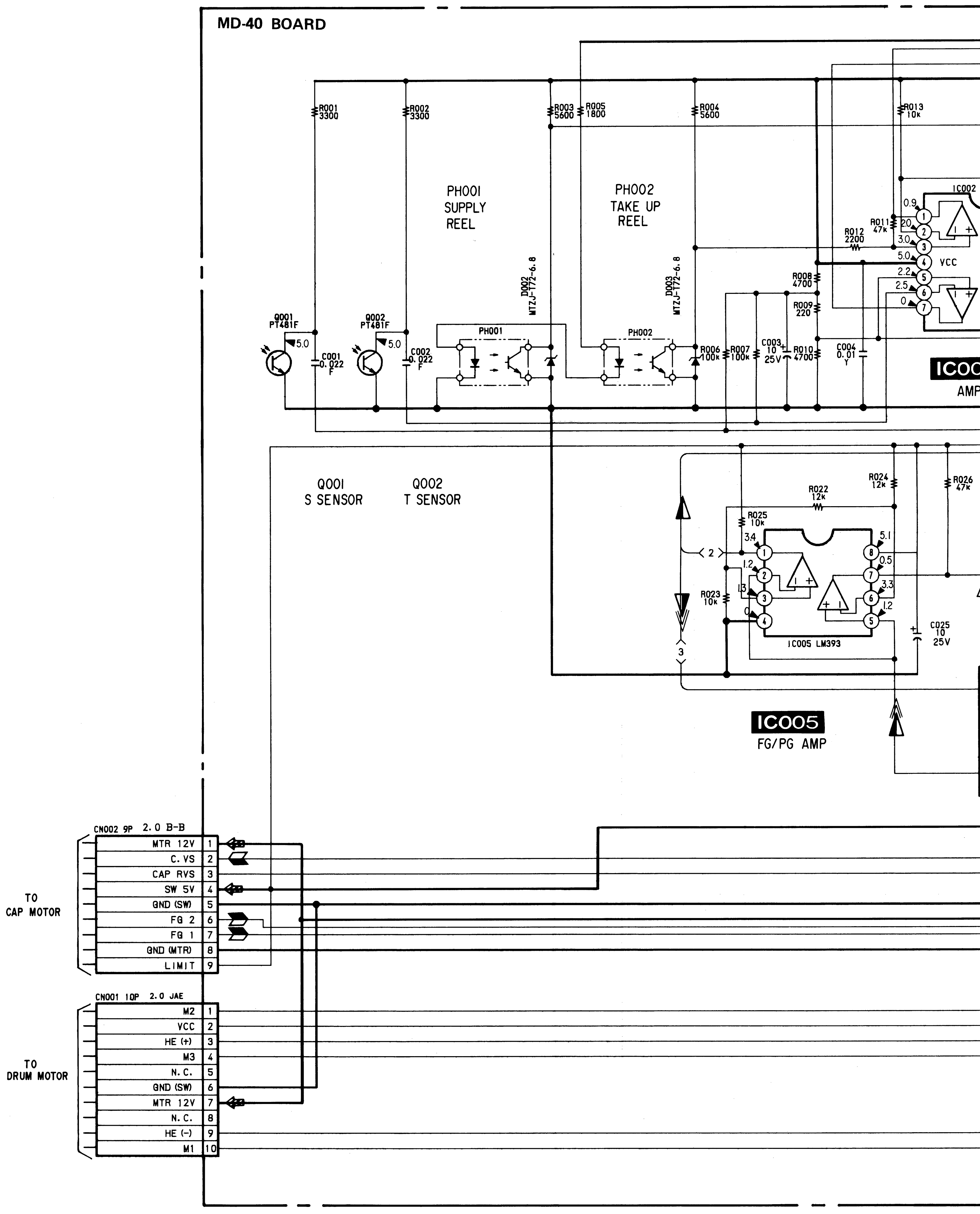
	VIDEO SIGNAL		
	CHROMA	Y	Y/CHROMA
REC			➡≫
PB			

	AUDIO
PB	⇨

SERVO, SYSTEM CONTROL   SERVO, SYSTEM CONTROL

MD-40 (MECHANISM DRIVE) SCHEMATIC DIAGRAM

—Ref. No. MD-40 Board: 4,000 series—


1
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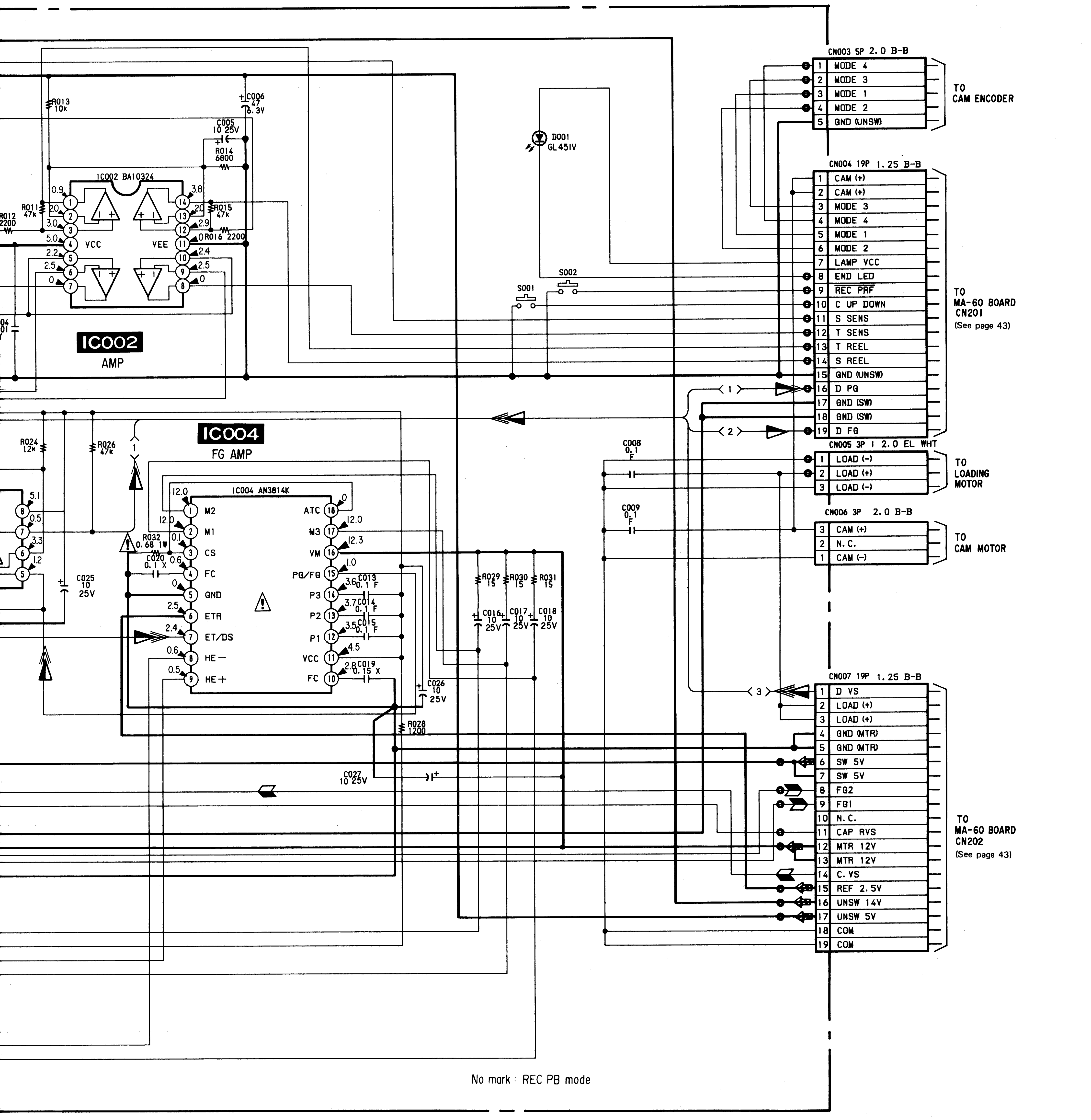
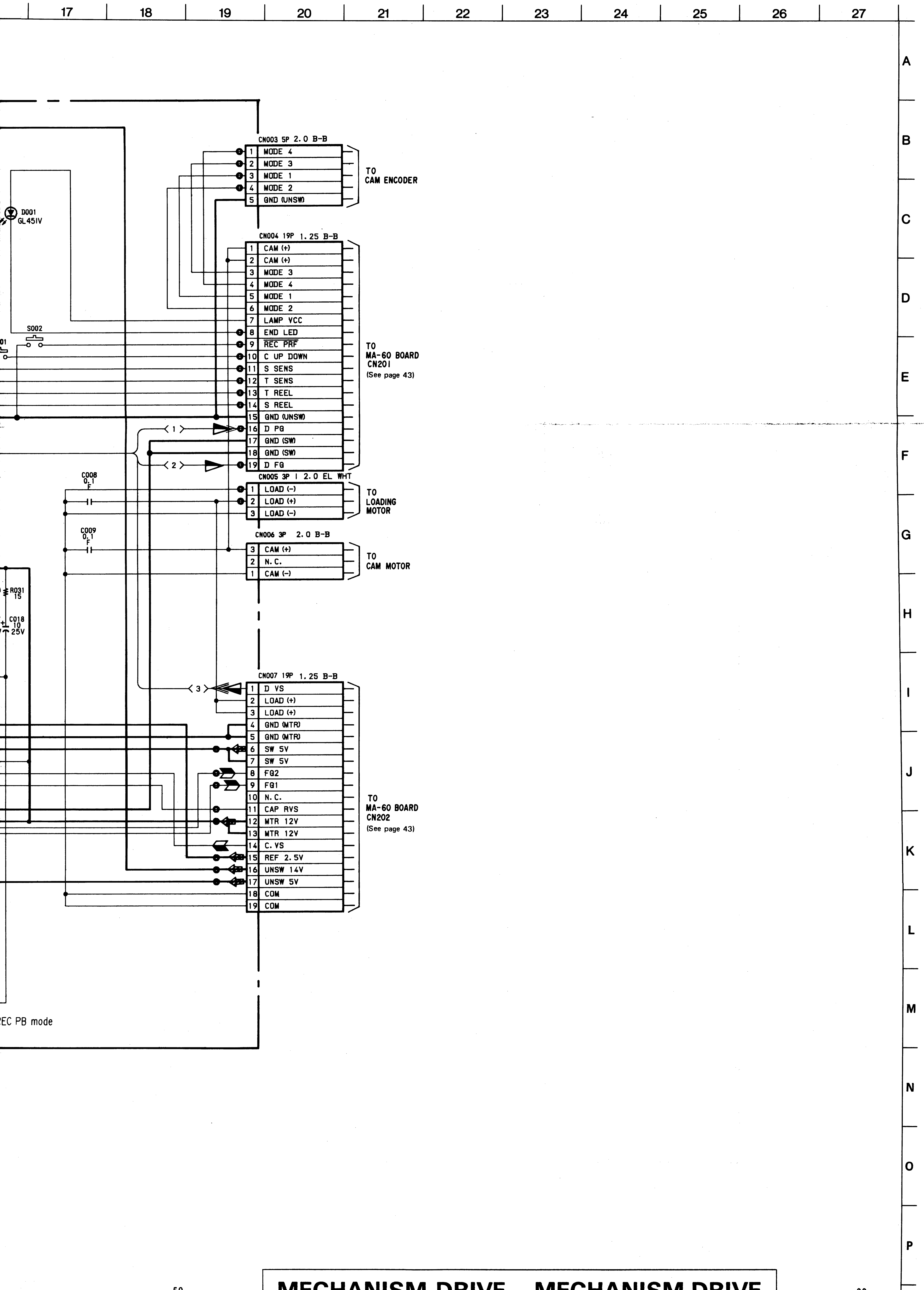
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
MD-40 BOARD
R001 3300
R002 3300
R003 5600
R005 1800
R004 5600
R013 10k
PH001 SUPPLY REEL
PH002 TAKE UP REEL
D002 MTZJ-T72-6.8
D003 MTZJ-T72-6.8
IC002
0.9
2.0
3.0
5.0
2.2
2.5
0
VCC
R011 47k
R012 2200
R008 4700
R009 220
Q001 PT481F
Q002 PT481F
5.0
5.0
C001 0.022 F
C002 0.022 F
PH001
PH002
R006 100k
R007 100k
C003 10 25V
R010 4700
C004 0.01 Y
IC00
AMP
Q001 S SENSOR
Q002 T SENSOR
R024 12k
R026 47k
R022 12k
R025 10k
3.4
1.2
1.3
0
5.1
0.5
3.3
1.2
R023 10k
2
3
IC005 LM393
C025 10 25V
IC005
FG/PG AMP
CN002 9P 2.0 B-B
MTR 12V 1
C.VS 2
CAP RVS 3
SW 5V 4
GND (SW) 5
FG 2 6
FG 1 7
GND (MTR) 8
LIMIT 9
TO CAP MOTOR
CN001 10P 2.0 JAE
M2 1
VCC 2
HE (+) 3
M3 4
N.C. 5
GND (SW) 6
MTR 12V 7
N.C. 8
HE (-) 9
M1 10
TO DRUM MOTOR


IC002
AMP
IC002 BA10324
R013 10k
C006 47 6.3V
C005 10 25V
R014 6800
R011 47k
R012 2200
R015 47k
R016 2200
VCC
VEE
IC004
FG AMP
IC004 AN3814K
M2
M1
CS
FC
GND
ETR
ET/DS
HE−
HE+
ATC
M3
VM
PG/FG
P3
P2
P1
VCC
FC
R024 12k
R026 47k
R032 0.68 1W
C020 0.1 X
C025 10 25V
C013 0.1 F
C014 0.1 F
C015 0.1 F
C019 0.15 X
C026 10 25V
R028 1200
C027 10 25V
R029 15
R030 15
R031 15
C016 10 25V
C017 10 25V
C018 10 25V
D001 GL451V
S001
S002
C008 0.1 F
C009 0.1 F
CN003 5P 2.0 B-B
1 MODE 4
2 MODE 3
3 MODE 1
4 MODE 2
5 GND (UNSW)
TO CAM ENCODER
CN004 19P 1.25 B-B
1 CAM (+)
2 CAM (+)
3 MODE 3
4 MODE 4
5 MODE 1
6 MODE 2
7 LAMP VCC
8 END LED
9 REC PRF
10 C UP DOWN
11 S SENS
12 T SENS
13 T REEL
14 S REEL
15 GND (UNSW)
16 D PG
17 GND (SW)
18 GND (SW)
19 D FG
TO MA-60 BOARD CN201 (See page 43)
CN005 3P I 2.0 EL WHT
1 LOAD (−)
2 LOAD (+)
3 LOAD (−)
TO LOADING MOTOR
CN006 3P 2.0 B-B
3 CAM (+)
2 N.C.
1 CAM (−)
TO CAM MOTOR
CN007 19P 1.25 B-B
1 D VS
2 LOAD (+)
3 LOAD (+)
4 GND (MTR)
5 GND (MTR)
6 SW 5V
7 SW 5V
8 FG2
9 FG1
10 N.C.
11 CAP RVS
12 MTR 12V
13 MTR 12V
14 C.VS
15 REF 2.5V
16 UNSW 14V
17 UNSW 5V
18 COM
19 COM
TO MA-60 BOARD CN202 (See page 43)
1
2
3

No mark : REC PB mode


17
18
19
20
21
22
23
24
25
26
27
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
D001
GL451V
S002
01
CN003 5P 2.0 B-B
1 MODE 4
2 MODE 3
3 MODE 1
4 MODE 2
5 GND (UNSW)
TO
CAM ENCODER
CN004 19P 1.25 B-B
1 CAM (+)
2 CAM (+)
3 MODE 3
4 MODE 4
5 MODE 1
6 MODE 2
7 LAMP VCC
8 END LED
9 REC PRF
10 C UP DOWN
11 S SENS
12 T SENS
13 T REEL
14 S REEL
15 GND (UNSW)
16 D PG
17 GND (SW)
18 GND (SW)
19 D FG
TO
MA-60 BOARD
CN201
(See page 43)
1
2
C008
0.1
F
CN005 3P I 2.0 EL WHT
1 LOAD (-)
2 LOAD (+)
3 LOAD (-)
TO
LOADING
MOTOR
C009
0.1
F
CN006 3P 2.0 B-B
3 CAM (+)
2 N.C.
1 CAM (-)
TO
CAM MOTOR
R031
15
C018
10
25V
3
CN007 19P 1.25 B-B
1 D VS
2 LOAD (+)
3 LOAD (+)
4 GND (MTR)
5 GND (MTR)
6 SW 5V
7 SW 5V
8 FG2
9 FG1
10 N.C.
11 CAP RVS
12 MTR 12V
13 MTR 12V
14 C.VS
15 REF 2.5V
16 UNSW 14V
17 UNSW 5V
18 COM
19 COM
TO
MA-60 BOARD
CN202
(See page 43)
EC PB mode

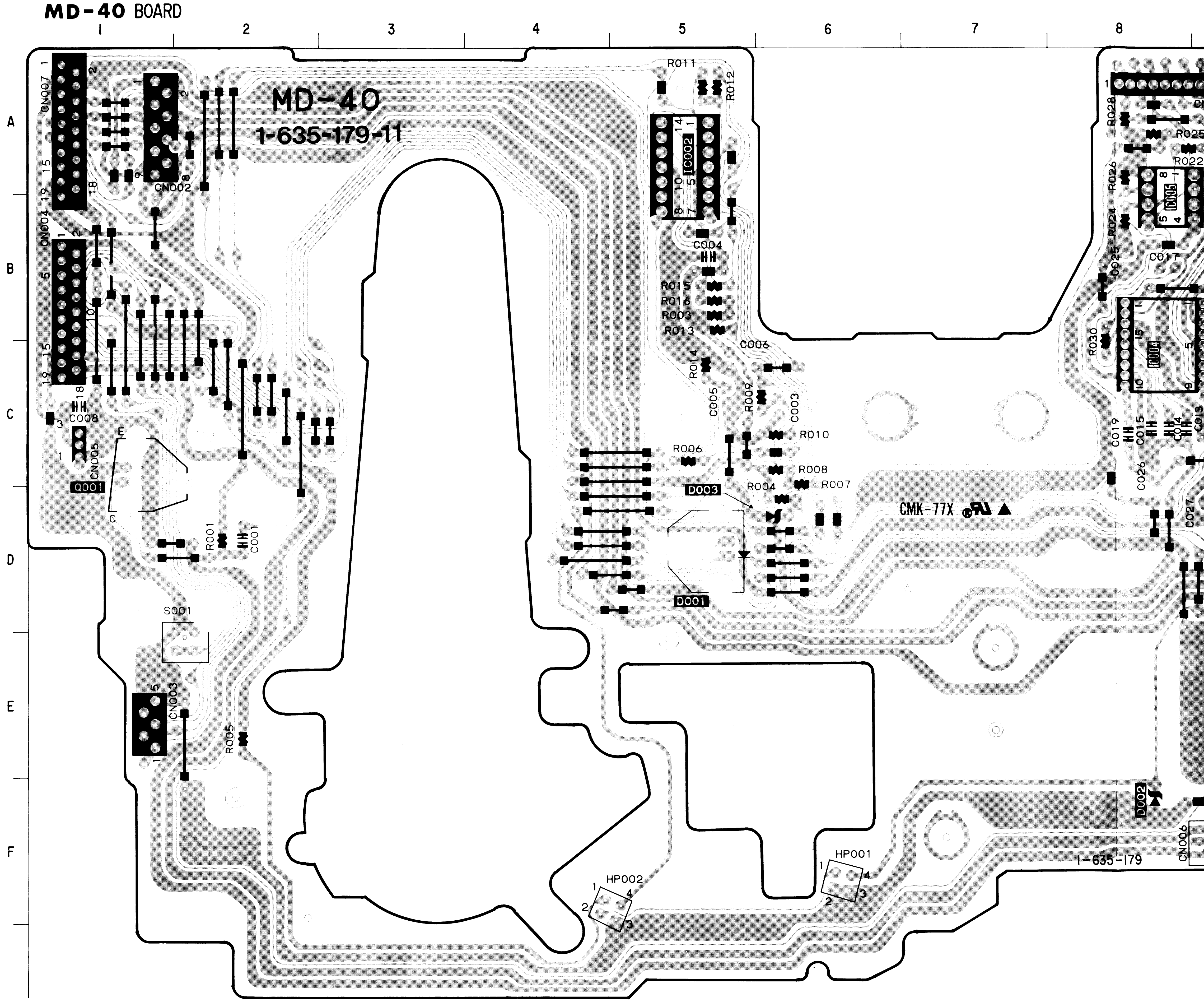
MECHANISM DRIVE MECHANISM DRIVE

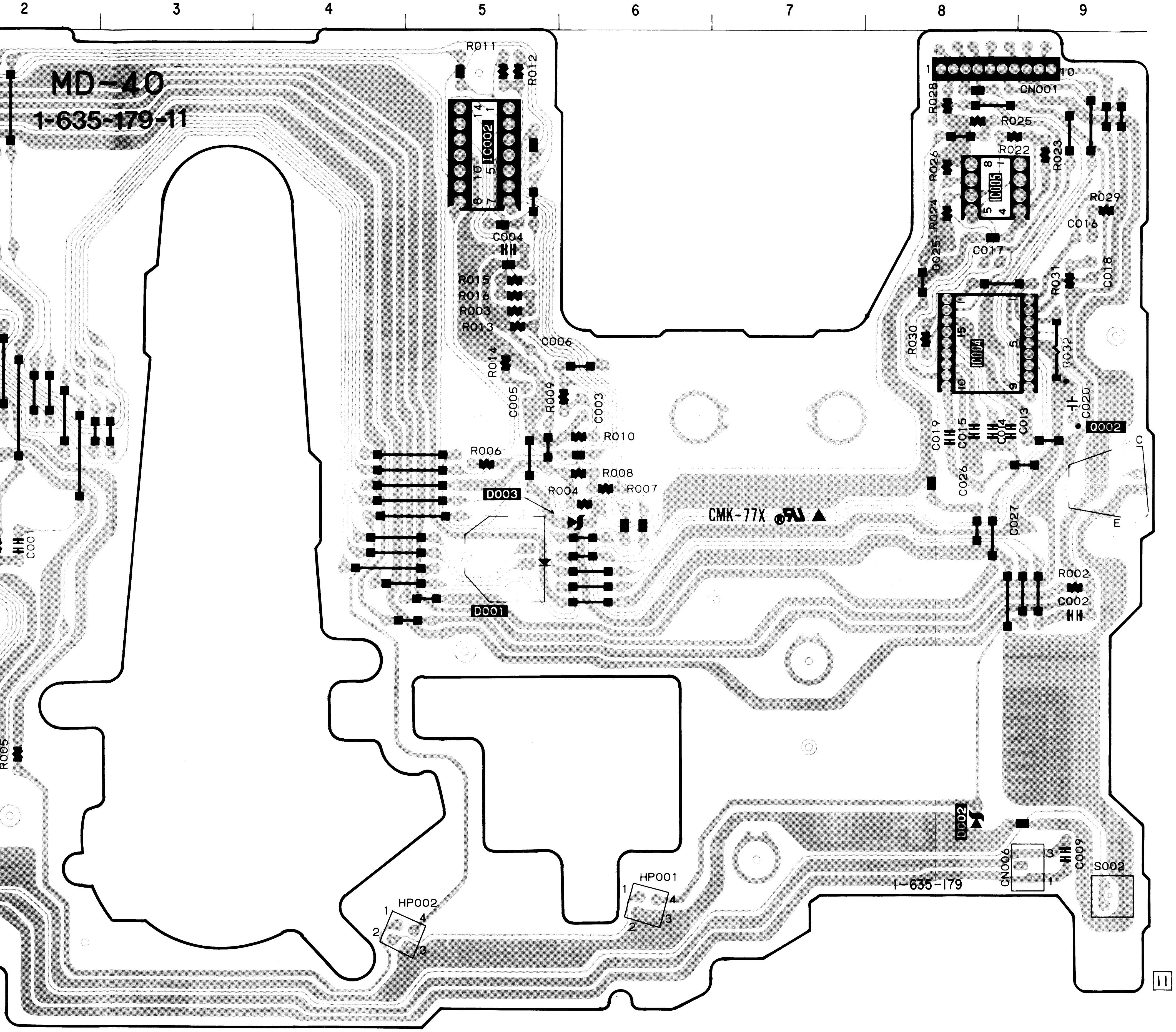
MD-40 (MECHANISM DRIVE) PRINTED WIRING BOARD

–Ref. No. MD-40 Board: 4,000 series–

MD-40 BOARD

D001	D-5
D002	F-8
D003	D-6
IC002	B-5
IC004	C-8
IC005	B-8
Q001	C-1
Q002	D-9


MD-40 BOARD
1
2
3
4
5
6
7
8
A
B
C
D
E
F
MD-40
1-635-179-11
CN007
CN002
CN004
CN005
CN003
CN006
Q001
C008
C001
R001
R005
S001
R011
R012
IC002
C004
R015
R016
R003
R013
R014
C006
C005
R009
C003
R010
R006
R008
R004
R007
D003
D001
CMK-77X
HP001
HP002
R028
R025
R022
R026
R024
IC005
C025
C017
R030
IC004
C019
C015
C014
C013
C026
C027
D002
1-635-179


2
3
4
5
6
7
8
9
MD-40
1-635-179-11
R011
R012
IC002
14
1
10
5
8
7
C004
R015
R016
R003
R013
R014
C006
C005
R009
C003
R010
R006
R008
R007
R004
D003
D001
C001
R005
CMK-77X
CN001
1
10
R028
R025
R022
R026
R023
IC005
8
5
4
R024
R029
C016
C025
C017
R031
C018
R030
IC004
15
5
10
9
R032
C020
Q002
C019
C015
C014
C013
C026
C027
C
E
R002
C002
D002
CN006
3
1
C009
S002
HP001
HP002
1
2
3
4
1-635-179
11

MF-95 (FUNCTION, LINE IN 2), MF-96 (FOW/RVS SWITCH), MF-97 (MODE CONTROL, INDICATOR) PRINTED WIRING BOARDS

–Ref. No. MF-95, MF-96, MF-97 Boards: 6,000 series–

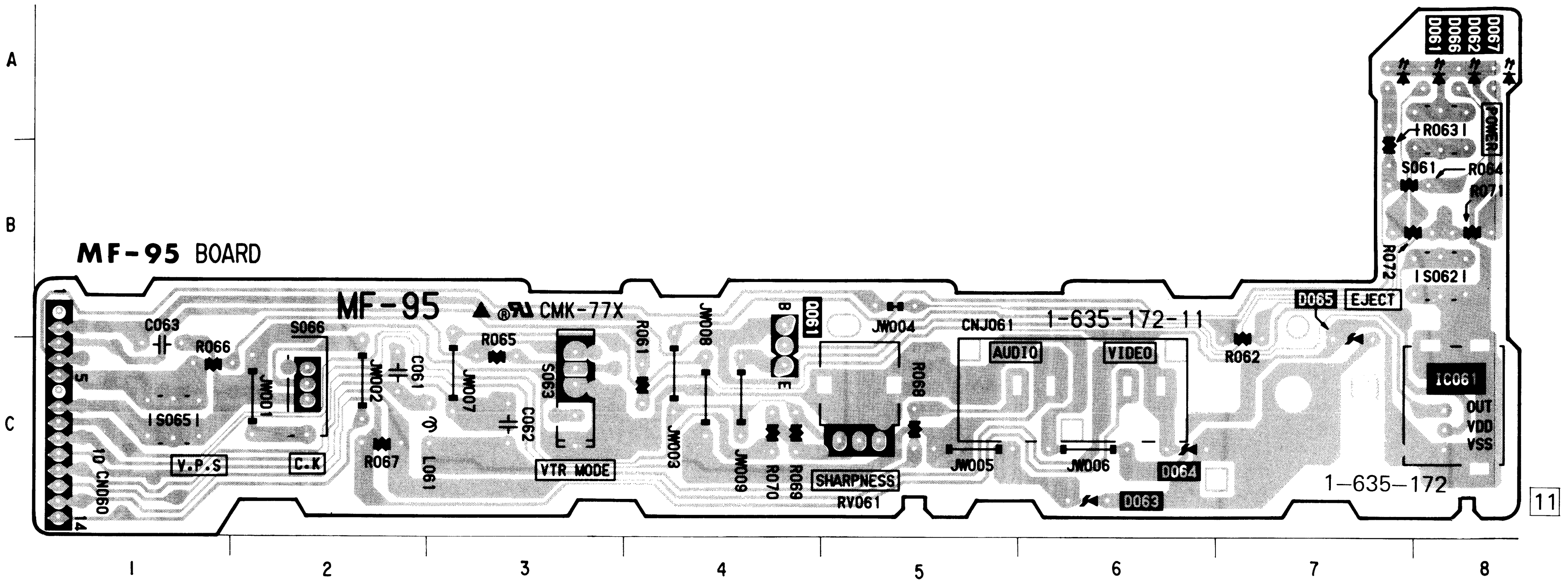
MF-95 BOARD

D061	A-8
D062	C-6
D063	C-6
D064	C-6
D065	C-7
D066	A-8
D067	A-8
IC061	C-8
Q061	C-4

MF-97 BOARD

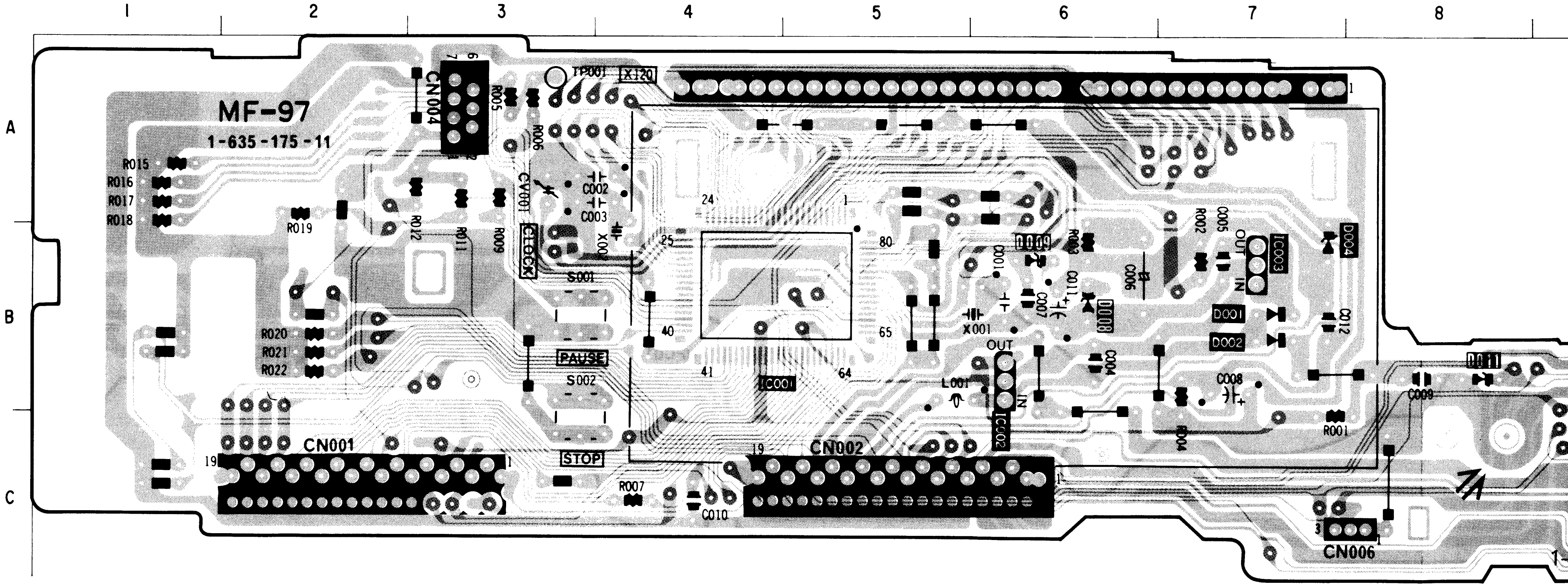
D001	B-7
D002	B-7
D004	B-8
D010	B-9
D011	B-8
IC001	B-4
IC002	B-6
IC003	B-7

MF-95 BOARD



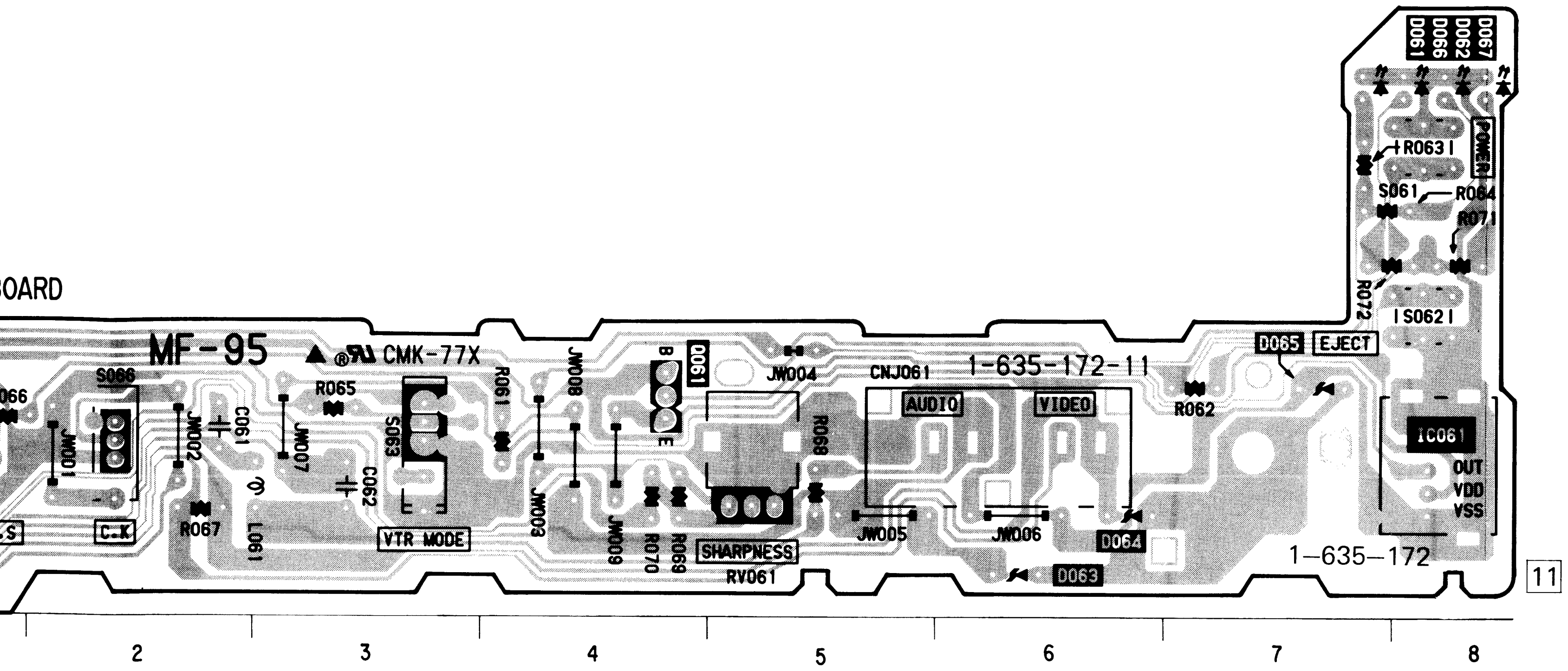
A
B
C
1
2
3
4
5
6
7
8
MF-95
CMK-77X
1-635-172-11
1-635-172
11
C063
R066
S066
S065
JW001
JW002
C061
JW007
R065
S063
C062
R067
L061
V.P.S
C.K
VTR MODE
R061
JW008
JW003
JW009
D061
JW004
R070
R069
R068
SHARPNESS
RV061
CNJ061
AUDIO
VIDEO
JW005
JW006
D064
D063
R062
D065
EJECT
IC061
OUT
VDD
VSS
CN060
D067
D062
D066
R063
POWER
S061
R064
R071
R072
S062

MF-97 BOARD

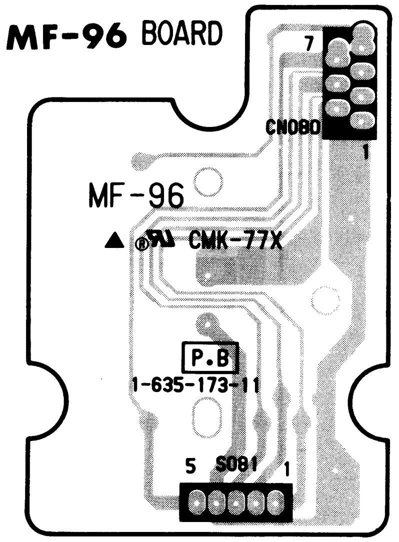


1
2
3
4
5
6
7
8
A
B
C
MF-97
1-635-175-11
R015
R016
R017
R018
R019
R012
R011
R009
CN004
R005
R006
TP001
X120
CV001
C002
C003
X001
CLOCK
S001
PAUSE
S002
STOP
R020
R021
R022
CN001
CN002
IC001
IC002
IC003
R007
C010
C001
C007
C011
D008
D009
C004
C005
C006
R002
R003
D001
D002
D004
C012
C008
C009
D011
R001
R004
L001
OUT
IN
CN006

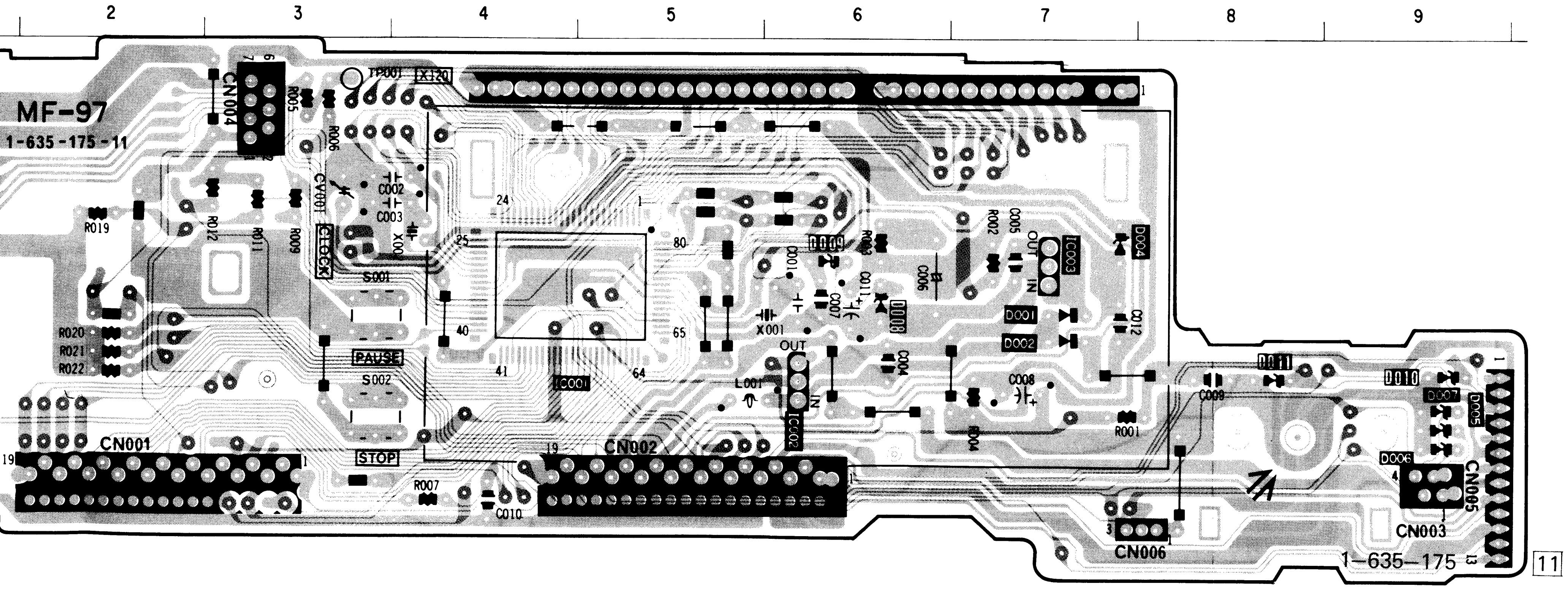
OARD


MF-95
CMK-77X
1-635-172-11
1-635-172
CNJ061
AUDIO
VIDEO
SHARPNESS
RV061
VTR MODE
EJECT
POWER
IC061
OUT
VDD
VSS
D061
D062
D063
D064
D065
D066
D067
S061
S062
S063
S066
R061
R062
R063
R064
R065
R067
R068
R069
R070
R071
R072
C061
C062
L061
JW001
JW002
JW003
JW004
JW005
JW006
JW007
JW008
JW009
C.K
11
2
3
4
5
6
7
8

MF-96 BOARD

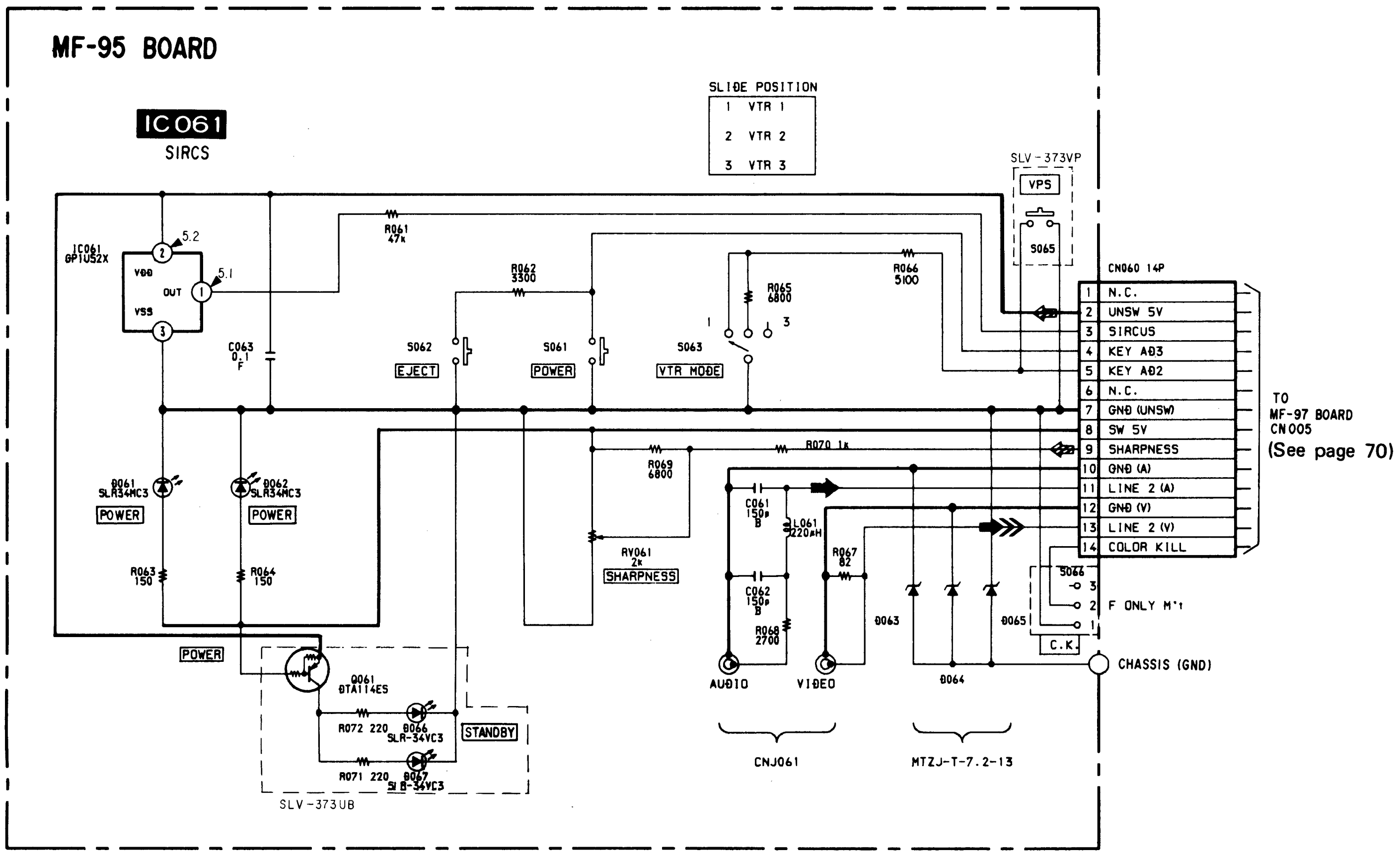

MF-96
CMK-77X
P.B
1-635-173-11
CN080
S091
7
1
5
1

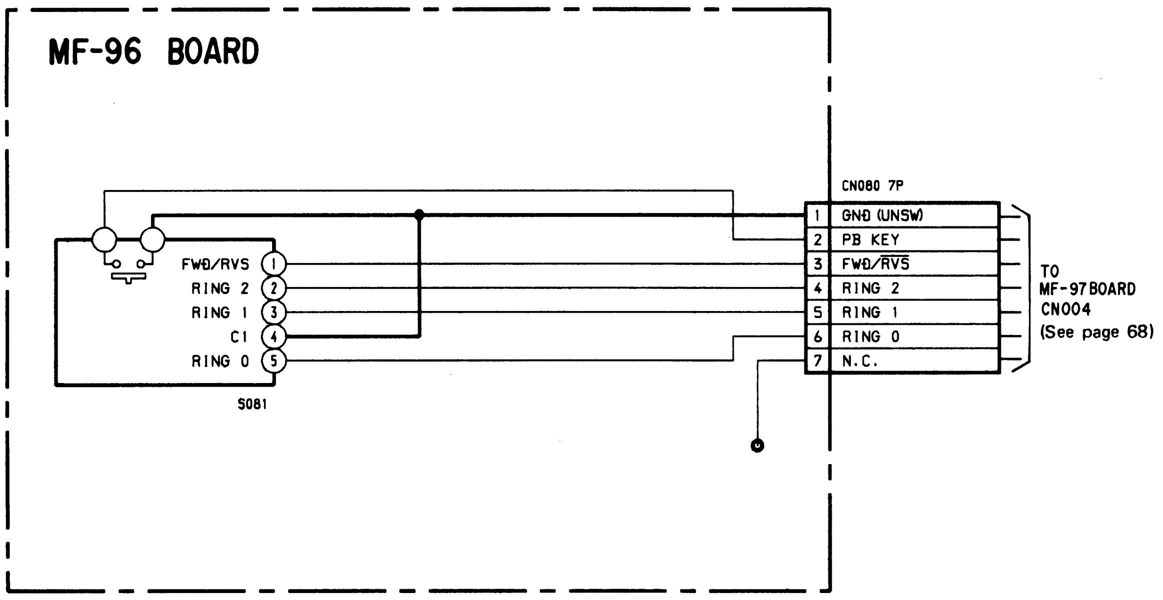
RD

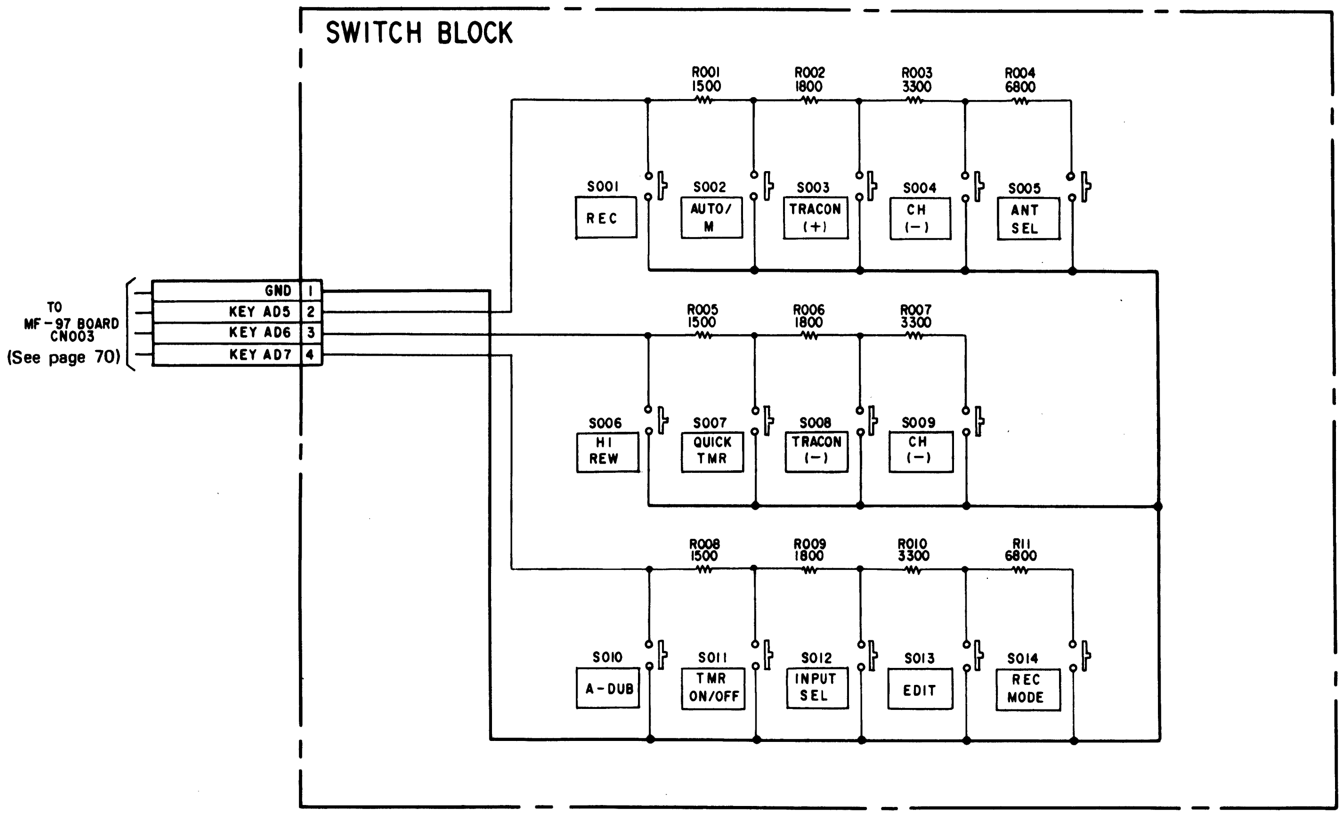

2
3
4
5
6
7
8
9
MF-97
1-635-175-11
1-635-175
CN001
CN002
CN003
CN004
CN005
CN006
IC001
IC002
IC003
X001
X120
TP001
CV001
CLOCK
S001
S002
PAUSE
STOP
OUT
IN
D001
D002
D004
D005
D006
D007
D008
D009
D010
D011
C002
C003
C004
C005
C006
C007
C008
C009
C010
C011
C012
L001
R001
R002
R003
R004
R005
R006
R007
R009
R011
R012
R019
R020
R021
R022
24
25
40
41
64
65
80
19
1
13
11

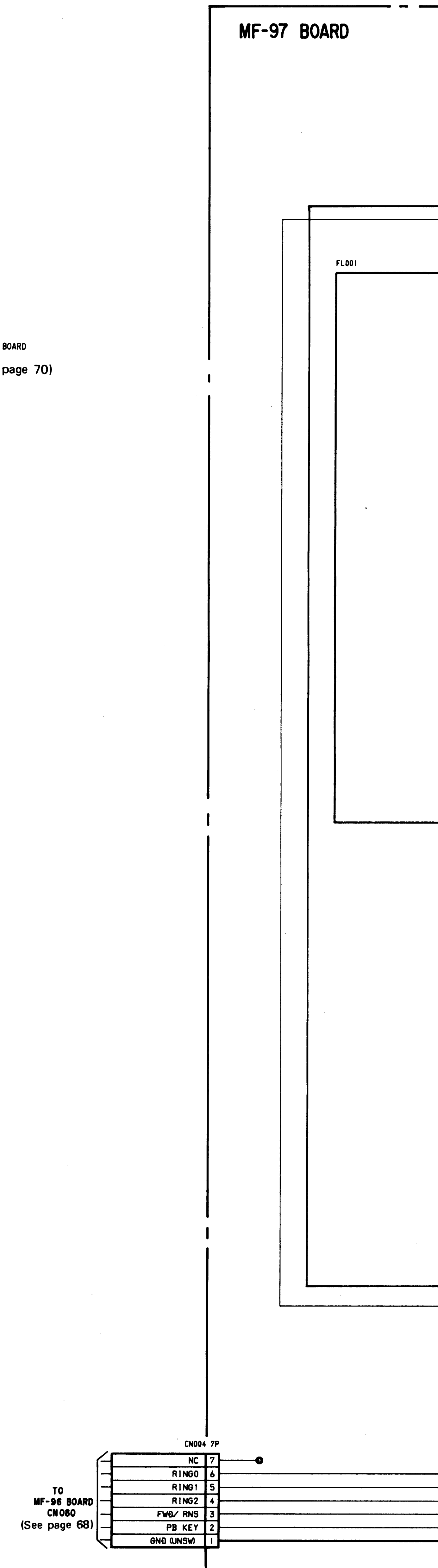
MF-95 (FUNCTION, LINE IN 2), MF-96 (FOW/RVS SWITCH), MF-97 (MODE CONTROL, INDICATOR) SCHEMATIC DIAGRAMS

–Ref. No. MF-95, MF-96, MF-97 Boards: 6,000 series–


MF-95 BOARD
IC061
SIRCS
SLIDE POSITION
1 VTR 1
2 VTR 2
3 VTR 3
SLV-373VP
VPS
S065
IC061
GP1U52X
VDD
OUT
VSS
5.2
5.1
R061
47k
R062
3300
R065
6800
R066
5100
C063
0.1
F
S062
EJECT
S061
POWER
S063
VTR MODE
CN060 14P
1 N.C.
2 UNSW 5V
3 SIRCUS
4 KEY AD3
5 KEY AD2
6 N.C.
7 GND (UNSW)
8 SW 5V
9 SHARPNESS
10 GND (A)
11 LINE 2 (A)
12 GND (V)
13 LINE 2 (V)
14 COLOR KILL
TO
MF-97 BOARD
CN005
(See page 70)
D061
SLR34MC3
POWER
D062
SLR34MC3
POWER
R063
150
R064
150
R069
6800
R070 1k
RV061
2k
SHARPNESS
C061
150p
B
L061
220μH
C062
150p
B
R067
82
R068
2700
D063
D064
D065
S066
F ONLY M'T
C.K.
CHASSIS (GND)
POWER
Q061
DTA114ES
R072 220
D066
SLR-34VC3
R071 220
D067
SLB-34VC3
STANDBY
SLV-373UB
AUDIO
VIDEO
CNJ061
MTZJ-T-7.2-13


MF-96 BOARD
FWD/RVS 1
RING 2 2
RING 1 3
CI 4
RING 0 5
S081
CN080 7P
1 GND (UNSW)
2 PB KEY
3 FWD/RVS
4 RING 2
5 RING 1
6 RING 0
7 N.C.
TO
MF-97 BOARD
CN004
(See page 68)

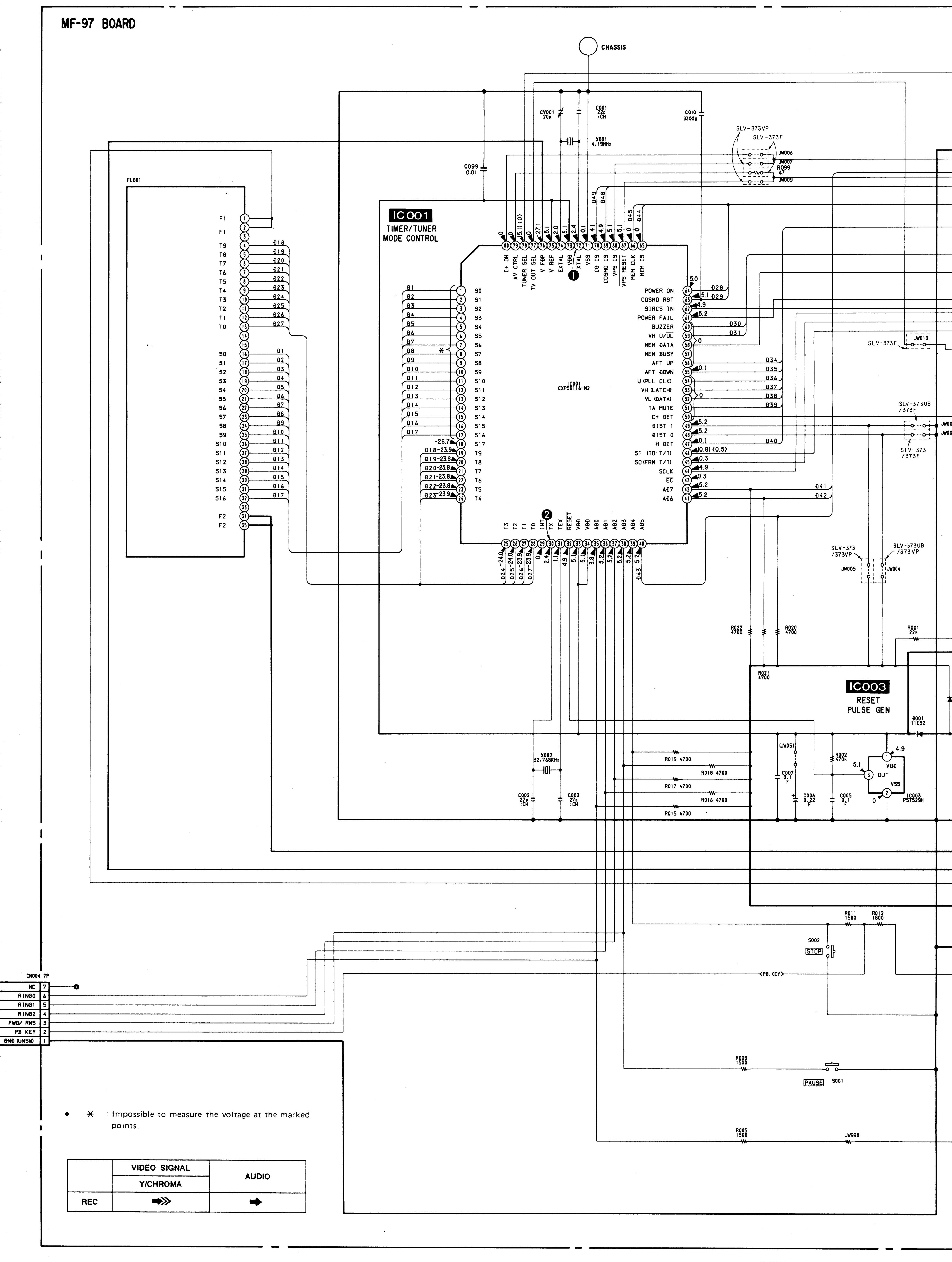

SWITCH BLOCK
TO
MF-97 BOARD
CN003
(See page 70)
GND 1
KEY AD5 2
KEY AD6 3
KEY AD7 4
R001
1500
R002
1800
R003
3300
R004
6800
S001
REC
S002
AUTO/M
S003
TRACON (+)
S004
CH (–)
S005
ANT SEL
R005
1500
R006
1800
R007
3300
S006
HI REW
S007
QUICK TMR
S008
TRACON (–)
S009
CH (–)
R008
1500
R009
1800
R010
3300
R11
6800
S010
A-DUB
S011
TMR ON/OFF
S012
INPUT SEL
S013
EDIT
S014
REC MODE


MF-97 BOARD
FL001
CN004 7P
NC 7
RING0 6
RING1 5
RING2 4
FWD/ RNS 3
PB KEY 2
GND (UNSW) 1
TO
MF-96 BOARD
CN080
(See page 68)

- ✱ : Impossible to measur
points.

	VIDEO SIGNAL
	Y/CHROMA
REC	➡》

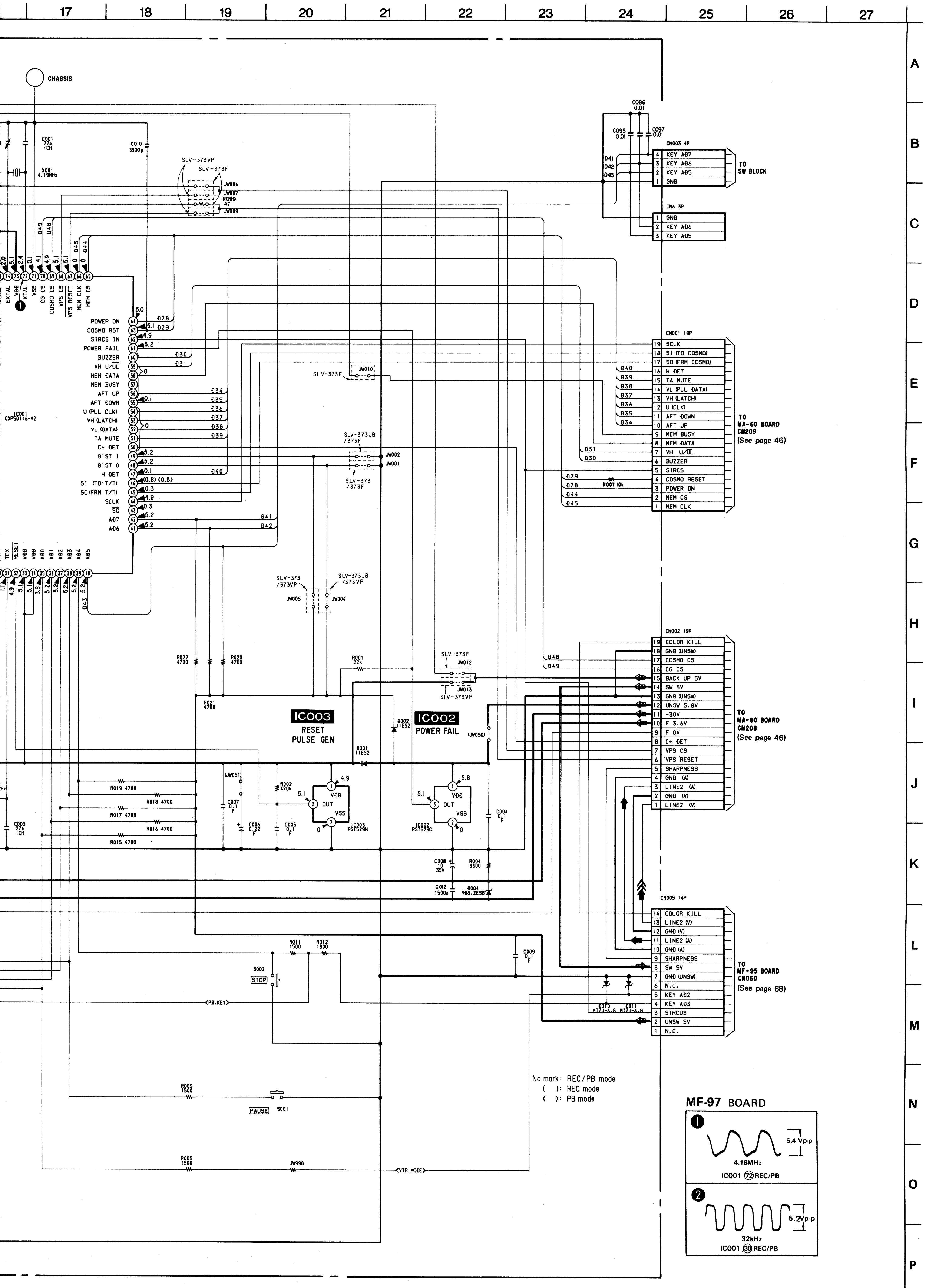
MF-97 BOARD


CHASSIS
CV001 20p
C001 22p :CH
X001 4.19MHz
C010 3300p
C099 0.01
SLV-373VP
SLV-373F
JW006
JW007
R099 47
JW009
FL001
F1
F2
T9
T8
T7
T6
T5
T4
T3
T2
T1
T0
S0
S1
S2
S3
S4
S5
S6
S7
S8
S9
S10
S11
S12
S13
S14
S15
S16
S17
IC001
TIMER/TUNER MODE CONTROL
IC001 CXP50116-M2
C+ ON
AV CTRL
TUNER SEL
TV OUT SEL
V FØP
V REF
EXTAL
XTAL
VDD
VSS
CG CS
COSMO CS
VPS CS
VPS RESET
MEM CLK
MEM CS
POWER ON
COSMO RST
SIRCS IN
POWER FAIL
BUZZER
VH U/UL
MEM DATA
MEM BUSY
AFT UP
AFT DOWN
U (PLL CLK)
VH (LATCH)
VL (DATA)
TA MUTE
C+ DET
DIST 1
DIST 0
H DET
SI (TO T/T)
SO (FRM T/T)
SCLK
EC
A07
A06
INT
TX
TEX
RESET
A00
A01
A02
A03
A04
A05
SLV-373F
JW010
SLV-373UB /373F
SLV-373 /373F
SLV-373 /373VP
SLV-373UB /373VP
JW005
JW004
R022 4700
R020 4700
R021 4700
R001 22k
IC003
RESET PULSE GEN
D001 11ES2
JW051
R002 470k
C007 0.1 F
C006 0.22 F
C005 0.1 F
VDD
OUT
VSS
IC003 PST529H
X002 32.768KHz
C002 27p :CH
C003 27p :CH
R019 4700
R018 4700
R017 4700
R016 4700
R015 4700
R011 1500
R012 1800
S002
STOP
(PB.KEY)
CN004 7P
NC
RING0
RING1
RING2
FWD/RNS
PB KEY
GND (UNSW)
R009 1500
PAUSE
S001
R005 1500
JW998

- ✳ : Impossible to measure the voltage at the marked points.

	VIDEO SIGNAL	AUDIO
	Y/CHROMA	
REC	⇛	➡

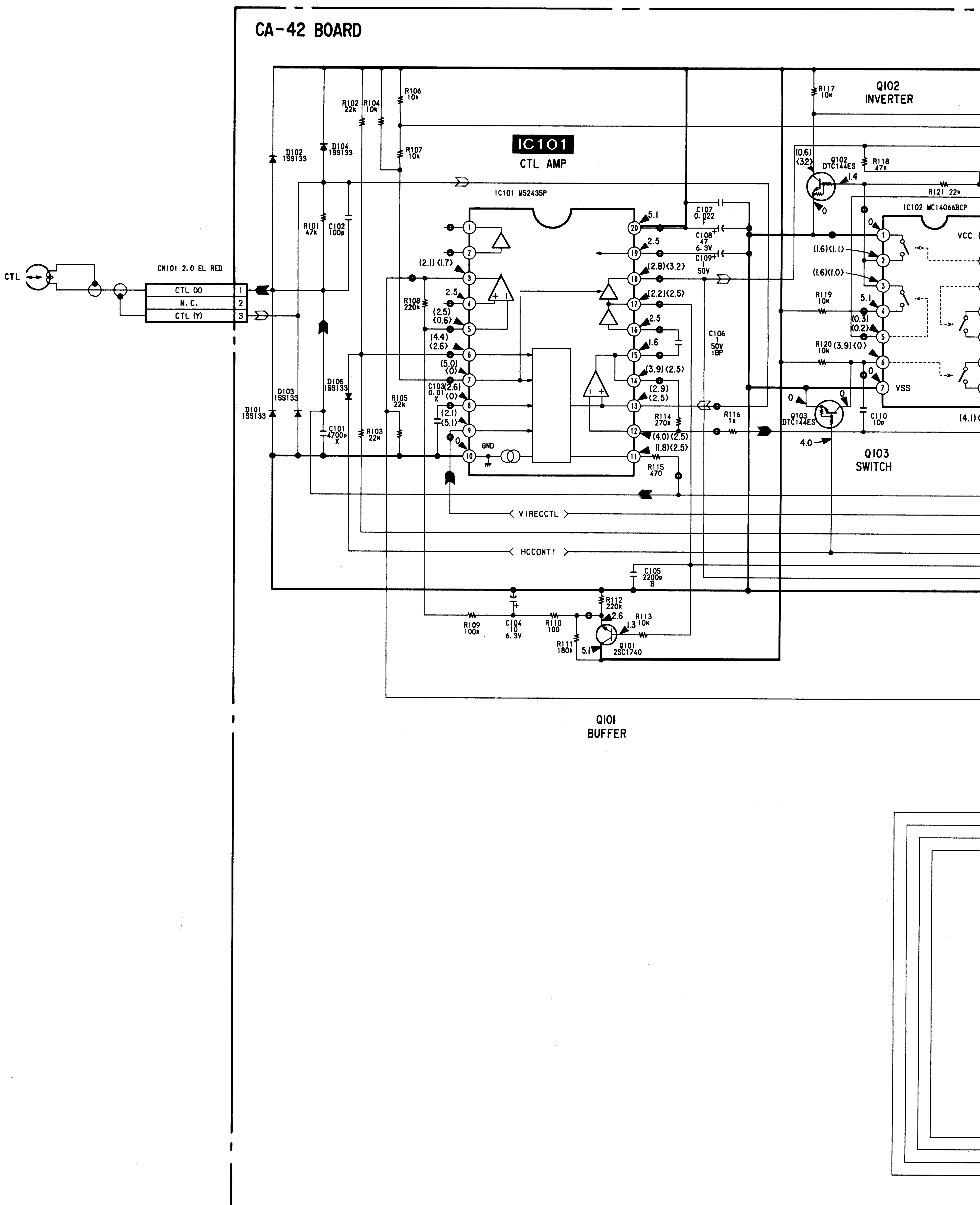
FUNCTION FUN


17
18
19
20
21
22
23
24
25
26
27
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
CHASSIS
C001 22p :CH
X001 4.19MHz
C010 3300p
SLV-373VP
SLV-373F
JW006
JW007
R099 47
JW009
IC001 CXP50116-M2
POWER ON
COSMO RST
SIRCS IN
POWER FAIL
BUZZER
VH U/UL
MEM DATA
MEM BUSY
AFT UP
AFT DOWN
U (PLL CLK)
VH (LATCH)
VL (DATA)
TA MUTE
C+ DET
DIST 1
DIST 0
H DET
SI (TO T/T)
SO (FRM T/T)
SCLK
EC
A07
A06
EXTAL
VDD
XTAL
VSS
CG CS
COSMO CS
VPS CS
VPS RESET
MEM CLK
MEM CS
TEX
RESET
VDD
VDD
A00
A01
A02
A03
A04
A05
(0.8) (0.5)
SLV-373F
JW010
SLV-373UB /373F
JW002
JW001
SLV-373 /373F
SLV-373 /373VP
SLV-373UB /373VP
JW005
JW004
R022 4700
R020 4700
R021 4700
R001 22k
SLV-373F
JW012
JW013
SLV-373VP
IC003
RESET PULSE GEN
IC002
POWER FAIL
D002 11ES2
D001 11ES2
(JW050)
(JW051)
R002 470k
C007 0.1 F
C006 0.22 F
C005 0.1 F
IC003 PST529H
IC002 PST529C
C004 0.1 F
R019 4700
R018 4700
R017 4700
R016 4700
R015 4700
C003 27p :CH
C008 10 35V
R004 3300
C012 1500p
D006 RD8.2ESB
R011 1500
R012 1800
C009 0.1 F
S002
STOP
<PB.KEY>
R009 1500
PAUSE
S001
R005 1500
JW998
<VTR.MODE>
C096 0.01
C095 0.01
C097 0.01
CN003 4P
KEY A07
KEY A06
KEY A05
GND
TO SW BLOCK
CN6 3P
GND
KEY A06
KEY A05
CN001 19P
SCLK
SI (TO COSMO)
SO (FRM COSMO)
H DET
TA MUTE
VL (PLL DATA)
VH (LATCH)
U (CLK)
AFT DOWN
AFT UP
MEM BUSY
MEM DATA
VH U/UL
BUZZER
SIRCS
COSMO RESET
POWER ON
MEM CS
MEM CLK
R007 10k
TO MA-60 BOARD CN209 (See page 46)
CN002 19P
COLOR KILL
GND (UNSW)
COSMO CS
CG CS
BACK UP 5V
SW 5V
GND (UNSW)
UNSW 5.8V
-30V
F 3.6V
F 0V
C+ DET
VPS CS
VPS RESET
SHARPNESS
GND (A)
LINE2 (A)
GND (V)
LINE2 (V)
TO MA-60 BOARD CN208 (See page 46)
CN005 14P
COLOR KILL
LINE2 (V)
GND (V)
LINE2 (A)
GND (A)
SHARPNESS
SW 5V
GND (UNSW)
N.C.
KEY A02
KEY A03
SIRCUS
UNSW 5V
N.C.
D010 MTZJ-6.8
D011 MTZJ-6.8
TO MF-95 BOARD CN060 (See page 68)
No mark: REC/PB mode
( ): REC mode
( ): PB mode
MF-97 BOARD
❶
5.4 Vp-p
4.16MHz
IC001 ㉒REC/PB
❷
5.2Vp-p
32kHz
IC001 ㉚REC/PB

FUNCTION FUNCTION

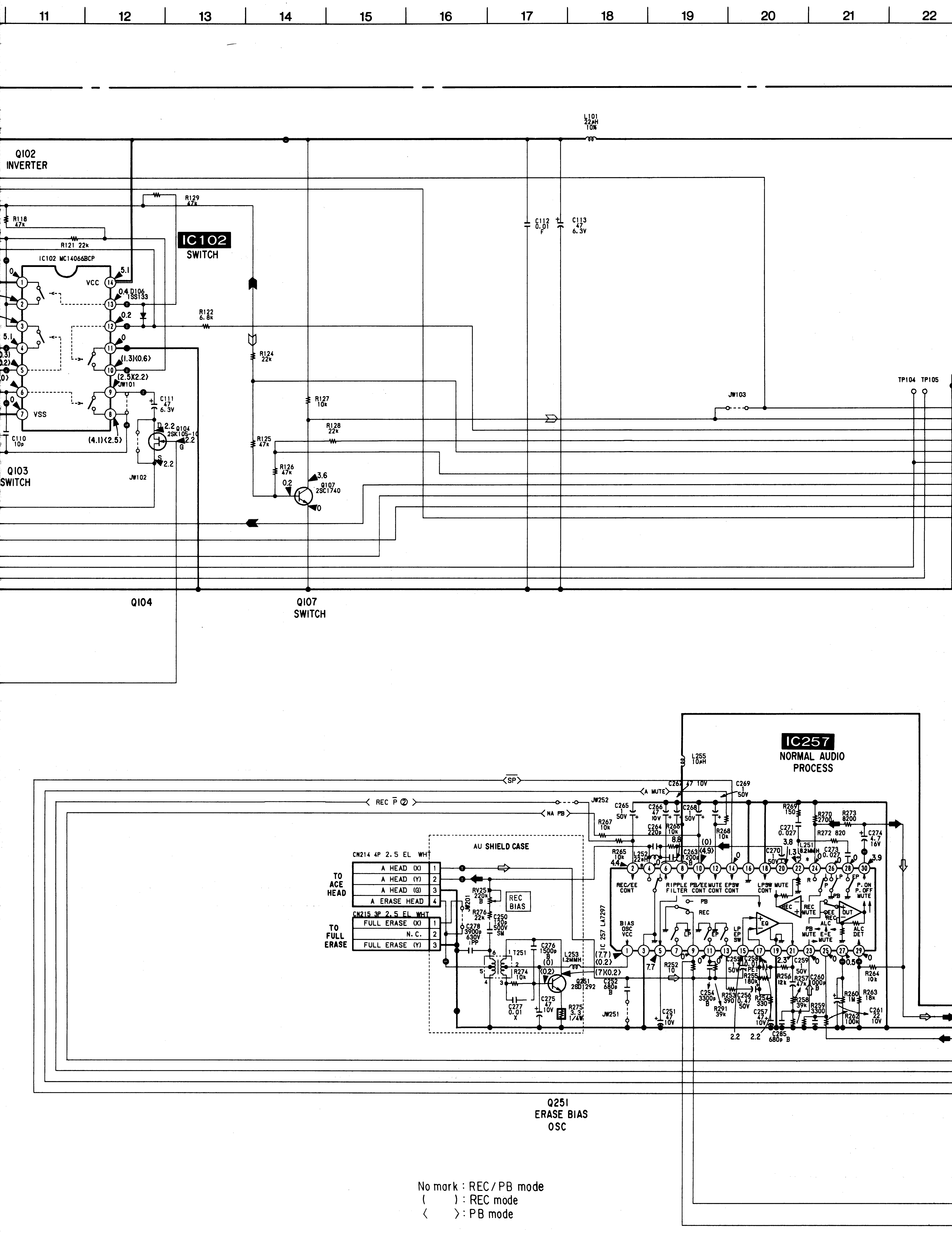
CA-42 (CTL AMP/AUDIO) SCHEMATIC DIAGRAMS

–Ref. No. CA-42 Board: 7,000 series–

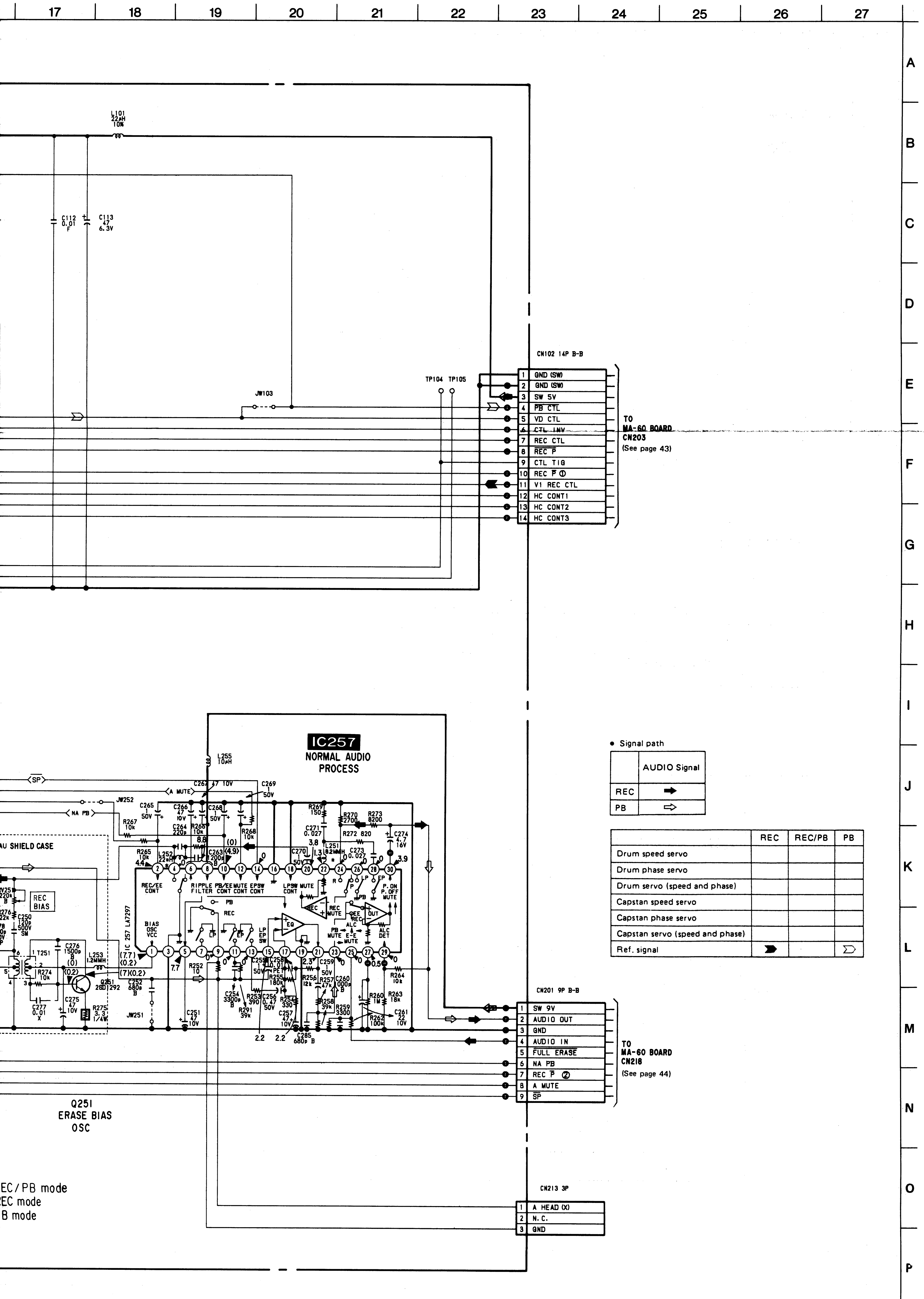


CA-42 BOARD
CTL
CN101 2.0 EL RED
CTL (X)
N.C.
CTL (Y)
D101 1SS133
D102 1SS133
D103 1SS133
D104 1SS133
D105 1SS133
R101 47k
R102 22k
R104 10k
R106 10k
R107 10k
R103 22k
R105 22k
R108 220k
C101 4700p X
C102 100p
C103 0.01 X
IC101
CTL AMP
IC101 M52435P
GND
C107 0.022 F
C108 47 6.3V
C109 1 50V
C106 1 50V :BP
R114 270k
R115 470
R116 1k
VIRECCTL
HCCONT1
C105 2200p B
R109 100k
C104 10 6.3V
R110 100
R111 180k
R112 220k
R113 10k
Q101 2SC1740
Q101
BUFFER
R117 10k
Q102
INVERTER
Q102 DTC144ES
R118 47k
R121 22k
IC102 MC14066BCP
VCC
VSS
R119 10k
R120 10k
Q103 DTC144ES
C110 10p
Q103
SWITCH

CTL AMP/AUDIO CTL AMP/AUDIO


11
12
13
14
15
16
17
18
19
20
21
22
Q102
INVERTER
IC102
SWITCH
IC102 MC14066BCP
VCC
VSS
R118 47k
R121 22k
R129 47k
R122 6.8k
R124 22k
R125 47k
R126 47k
R127 10k
R128 22k
D106 1SS133
C110 10p
C111 47 6.3V
C112 0.01 F
C113 47 6.3V
L101 22μH 10%
Q104 2SK105-10
Q107 2SC1740
JW101
JW102
JW103
TP104
TP105
Q103
SWITCH
Q104
Q107
SWITCH
IC257
NORMAL AUDIO
PROCESS
IC257 LA7297
L255 10μH
SP
A MUTE
REC P ②
NA PB
JW252
JW251
AU SHIELD CASE
CN214 4P 2.5 EL WHT
A HEAD (X)
A HEAD (Y)
A HEAD (G)
A ERASE HEAD
TO
ACE
HEAD
CN215 3P 2.5 EL WHT
FULL ERASE (X)
N.C.
FULL ERASE (Y)
TO
FULL
ERASE
RV251 220k B
REC
BIAS
T251
L253 1.2MMH
Q251 2SD1292
REC/EE CONT
RIPPLE FILTER
PB/EE CONT
MUTE CONT
EPSW CONT
LPSW CONT
MUTE
BIAS OSC VCC
LP EP SW
EQ
REC MUTE
PB MUTE
E-E MUTE
ALC
OUT
ALC DET
P.ON P.OFF MUTE
Q251
ERASE BIAS
OSC

No mark : REC/PB mode
(　　) : REC mode
〈　　〉: PB mode


17
18
19
20
21
22
23
24
25
26
27
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
L101 22μH 10%
C112 0.01 F
C113 47 6.3V
JW103
TP104 TP105
CN102 14P B-B
1 GND (SW)
2 GND (SW)
3 SW 5V
4 PB CTL
5 VD CTL
6 CTL INV
7 REC CTL
8 REC P
9 CTL TIG
10 REC P ①
11 V1 REC CTL
12 HC CONT1
13 HC CONT2
14 HC CONT3
TO MA-60 BOARD CN203 (See page 43)
IC257
NORMAL AUDIO PROCESS
IC 257 LA7297
L255 10μH
SP
A MUTE
NA PB
JW252
JW251
AU SHIELD CASE
REC BIAS
REC/EE CONT
RIPPLE FILTER
PB/EE CONT
MUTE CONT
EPSW CONT
LPSW CONT
MUTE
BIAS OSC VCC
LP EP SW
EQ
REC MUTE
PB MUTE
E-E MUTE
ALC
ALC DET
OUT
P.ON P.OFF MUTE
T251
Q251 2SD1292
L253 1.2MMH
Q251
ERASE BIAS
OSC
CN201 9P B-B
1 SW 9V
2 AUDIO OUT
3 GND
4 AUDIO IN
5 FULL ERASE
6 NA PB
7 REC P ②
8 A MUTE
9 SP
TO MA-60 BOARD CN218 (See page 44)
CN213 3P
1 A HEAD (X)
2 N.C.
3 GND
EC/PB mode
EC mode
B mode

- Signal path

	AUDIO Signal
REC	➡
PB	⇨

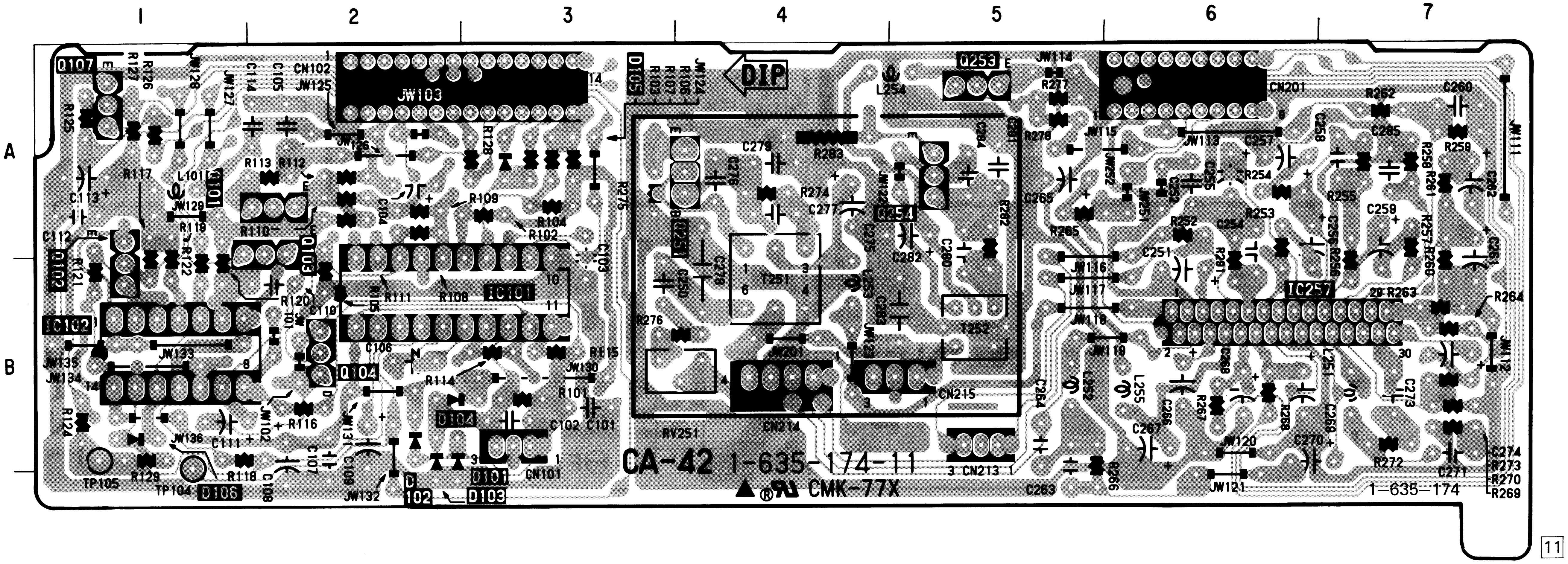
	REC	REC/PB	PB
Drum speed servo			
Drum phase servo			
Drum servo (speed and phase)			
Capstan speed servo			
Capstan phase servo			
Capstan servo (speed and phase)			
Ref. signal	➤		▷

CTL AMP/AUDIO CTL AMP/AUDIO

CA-42 (CTL AMP/AUDIO) PRINTED WIRING BOARD

–Ref. No. CA-42 Board: 7,000 series–

CA-42 BOARD


1
2
3
4
5
6
7
A
B
Q107
CN102
JW103
D105
DIP
Q253
L254
CN201
JW114
R277
IC101
IC102
IC257
Q101
Q102
Q103
Q104
D101
D102
D103
D104
D106
CN101
Q251
Q254
T251
T252
JW201
CN214
CN215
CN213
RV251
TP105
TP104
CA-42 1-635-174-11
CMK-77X
1-635-174
11

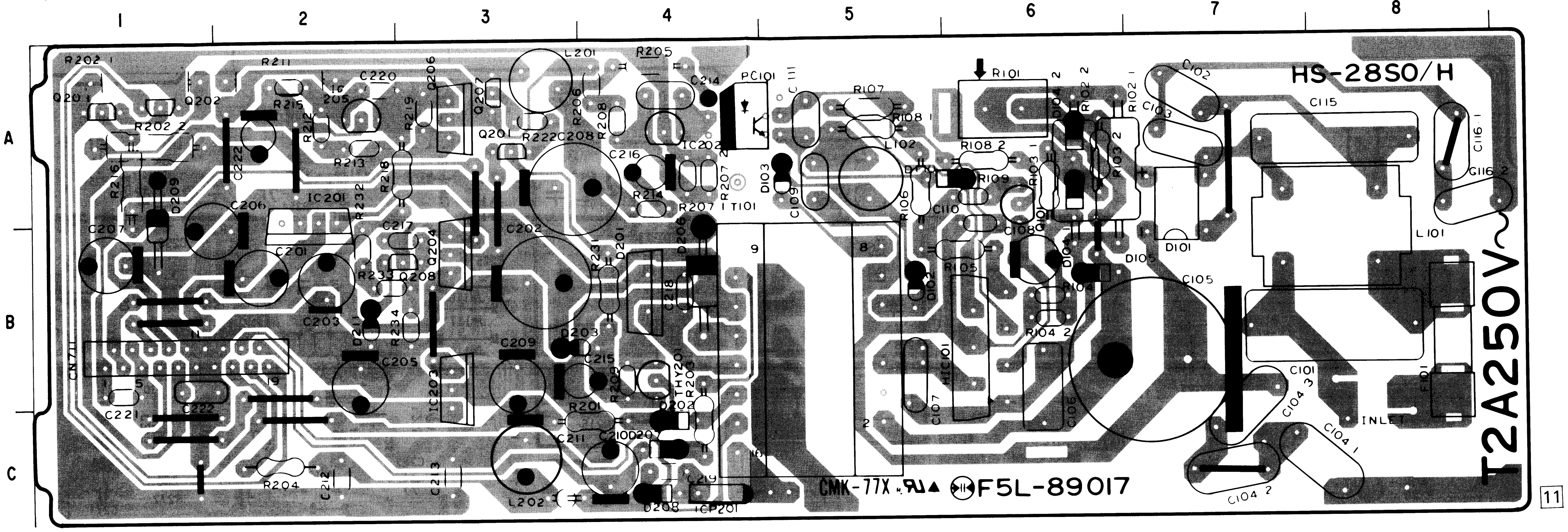
CA-42 BOARD

D101	B-2
D102	B-2
D103	B-2
D104	B-3
D105	A-3
D106	B-1
IC101	B-2
IC102	B-1
IC257	B-6
Q101	A-2
Q102	B-1
Q103	B-2
Q104	B-2
Q107	A-1
Q251	A-4

POWER SUPPLY PRINTED WIRING BOARD

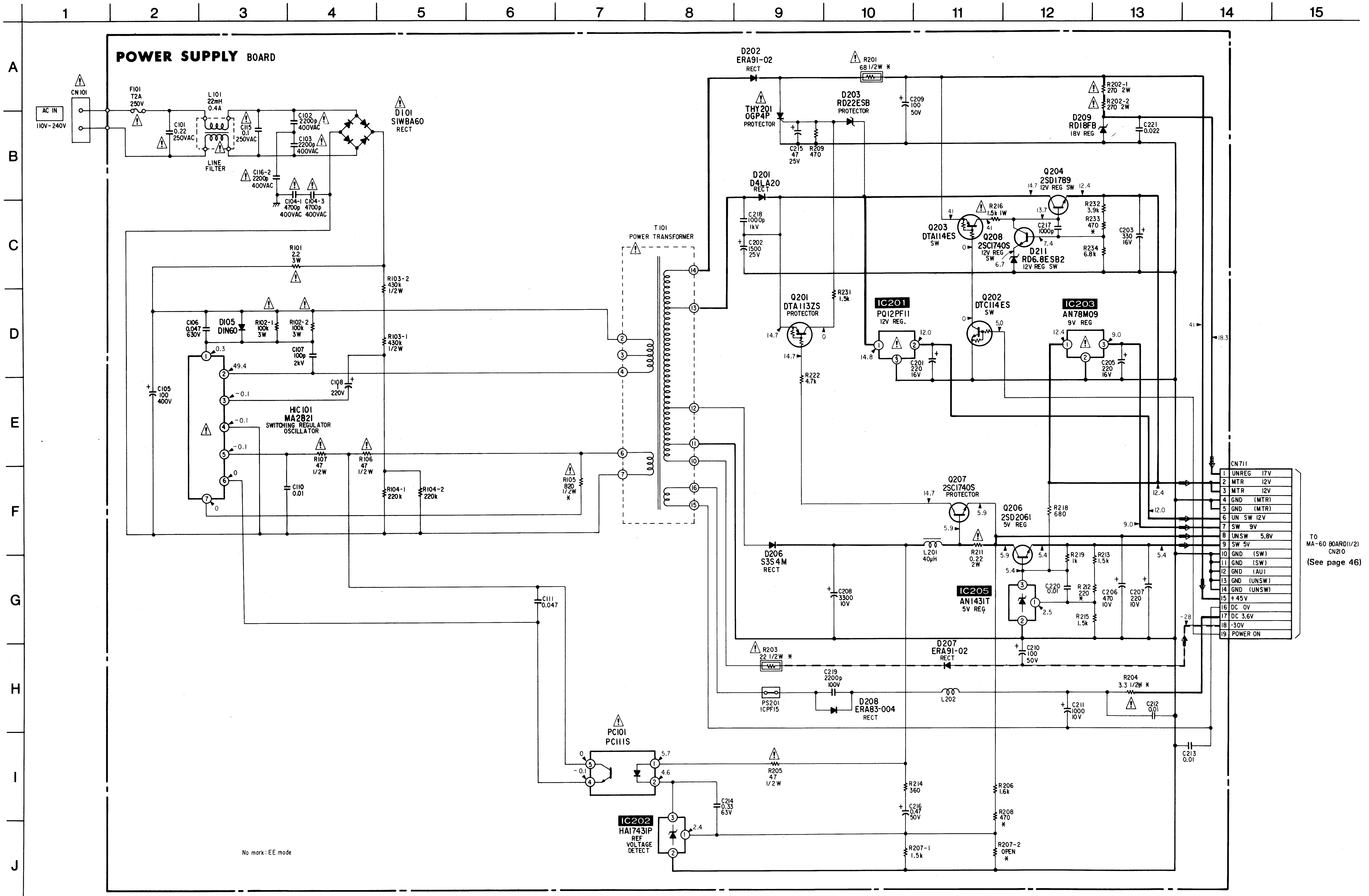
–Ref. No. 9,000 series–

POWER BOARD


1
2
3
4
5
6
7
8
A
B
C
R202 1
R211
Q201
Q202
R202 2
R215
C220
Q206
Q207
L201
R205
C214
PC101
C111
R107
R101
R102 2
R102 1
C102
C103
HS-28SO/H
C115
C116 1
C116 2
R212
R219
Q201
R222
C208
R206
R208
IC202
R108 1
L102
R108 2
D104
R103 2
R103 1
R213
R218
C216
R207 2
R207 1
T101
D103
C109
D110
R109
R216
D209
C222
IC201
R232
C206
C207
C201
C217
Q204
C202
R214
R106
C110
D102
C108
D101
D105
L101
C203
R233
Q208
R231
D201
D206
C218
9
8
R105
D112
R104 1
R104 2
C105
T2A250V~
CN711
5
19
C221
C222
D211
R234
C205
IC203
C209
D203
C215
R209
THY201
R203
R201
D204
C107
IC101
C106
C101
C104 3
INLET
F101
C211
C210
D207
C104 1
C104 2
R204
C212
C213
L202
D208
C219
ICP201
2
CMK-77X
F5L-89017
11

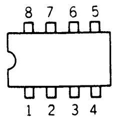
POWER SUPPLY SCHEMATIC DIAGRAM

– Ref. No. 9,000 series–


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
J
POWER SUPPLY BOARD
AC IN
110V-240V
CN101
F101
T2A
250V
C101
0.22
250VAC
L101
22mH
0.4A
LINE FILTER
C115
0.1
250VAC
C102
2200p
400VAC
C103
2200p
400VAC
C116-2
2200p
400VAC
C104-1
4700p
400VAC
C104-3
4700p
400VAC
D101
SIWBA60
RECT
R101
2.2
3W
R103-2
430k
1/2W
R103-1
430k
1/2W
C106
0.047
630V
D105
DIN60
R102-1
100k
3W
R102-2
100k
3W
C107
100p
2kV
C108
220V
C105
100
400V
HIC101
MA2821
SWITCHING REGULATOR OSCILLATOR
0.3
49.4
-0.1
-0.1
-0.1
0
0
C110
0.01
R107
47
1/2W
R106
47
1/2W
R104-1
220k
R104-2
220k
R105
820
1/2W
*
T101
POWER TRANSFORMER
C111
0.047
PC101
PC111S
0
-0.1
5.7
4.6
IC202
HA17431P
REF VOLTAGE DETECT
2.4
C214
0.33
63V
R205
47
1/2W
D202
ERA91-02
RECT
THY201
OGP4P
PROTECTOR
C215
47
25V
R209
470
D203
RD22ESB
PROTECTOR
R201
68 1/2W *
C209
100
50V
R202-1
270 2W
R202-2
270 2W
D209
RD18FB
18V REG
C221
0.022
D201
D4LA20
RECT
C218
1000p
1kV
C202
1500
25V
Q204
2SD1789
12V REG SW
14.7
12.4
13.7
R216
1.5k 1W
41
41
Q203
DTA114ES
SW
0
Q208
2SC1740S
12V REG SW
6.7
7.4
C217
1000p
D211
RD6.8ESB2
12V REG SW
R232
3.9k
R233
470
*
R234
6.8k
C203
330
16V
Q201
DTA113ZS
PROTECTOR
R231
1.5k
14.7
14.7
0
R222
4.7k
IC201
PQ12PF11
12V REG.
14.8
12.0
C201
220
16V
Q202
DTC114ES
SW
0
5.0
IC203
AN78M09
9V REG
12.4
9.0
C205
220
16V
41
18.3
Q207
2SC1740S
PROTECTOR
14.7
5.9
5.9
D206
S3S4M
RECT
C208
3300
10V
L201
40μH
R211
0.22
2W
Q206
2SD2061
5V REG
5.9
5.4
5.4
R218
680
IC205
AN1431T
5V REG
2.5
C220
0.01
R212
220
*
R219
1k
R213
1.5k
R215
1.5k
C206
470
10V
C207
220
10V
12.4
12.0
9.0
5.4
-28
R203
22 1/2W *
D207
ERA91-02
RECT
C210
100
50V
C219
2200p
100V
PS201
ICPF15
D208
ERA83-004
RECT
L202
C211
1000
10V
R204
3.3 1/2W *
C212
0.01
C213
0.01
R214
360
C216
0.47
50V
R207-1
1.5k
R206
1.6k
R208
470
*
R207-2
OPEN
*
No mark: EE mode
CN711
1 UNREG 17V
2 MTR 12V
3 MTR 12V
4 GND (MTR)
5 GND (MTR)
6 UN SW 12V
7 SW 9V
8 UNSW 5.8V
9 SW 5V
10 GND (SW)
11 GND (SW)
12 GND (AU)
13 GND (UNSW)
14 GND (UNSW)
15 +45V
16 DC 0V
17 DC 3.6V
18 -30V
19 POWER ON
TO MA-60 BOARD(1/2) CN210
(See page 46)

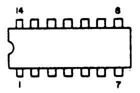
4-3. SEMICONDUCTOR LEAD LAYOUTS

BA4560
CXL5003P
LM393N
MSM6989RS
ST93C46AB1



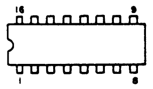
(Top view)

BA10324
LM324N
MC14066BCP
SDA5642



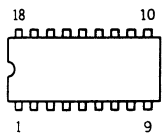
(TOP VIEW)

TC4052BPHB



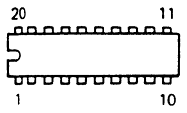
(TOP VIEW)

AN3814K



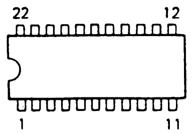
(Top view)

M52435P



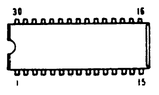
(Top view)

AN3592K



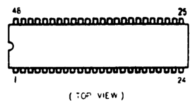
(Top view)

HA118016NT
HA118019NT
LC6543H-4374

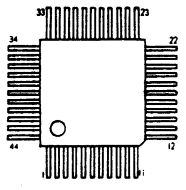


(Top view)

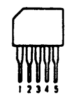
AN3231K


48
25
1
24
(TOP VIEW)

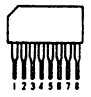
UPD75004GB-VSX182


33
23
34
22
44
12

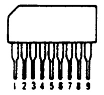
LA7213



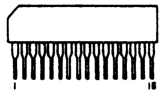
CX20061



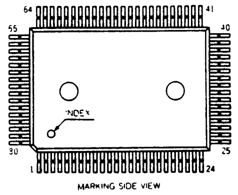
LVA519S



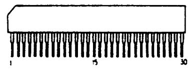
BA7007



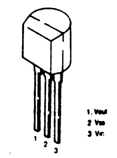
CXP50116-VSX350


64
41
65
40
INDEX
80
25
1
24
MARKING SIDE VIEW

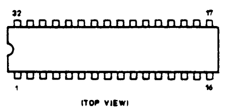
LA7297



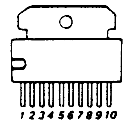
PST529C
PST529H



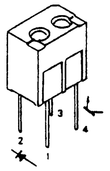
M50554-182SP


32
17
1
16
(TOP VIEW)

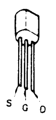
BA6238A


1 2 3 4 5 6 7 8 9 10

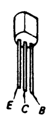
PS6002



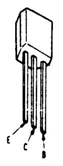
2SK105A-10



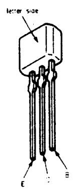
2SA922S-QR



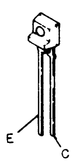
DTA114ES
DTA124ES
DTA144ES
DTC114ES
DTC144ES
2SC1740S-QR
2SD1292



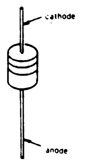
DTA143XS



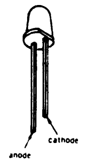
PT483F1



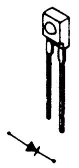
RD5.1ES-B2
RD6.8ES-B2
RD8.2ES-B2
RD13ES-B2
RD33ES-B2
1SR139-100
1SS119


cathode
anode

SLR-34MC3


anode
cathode

GL451V



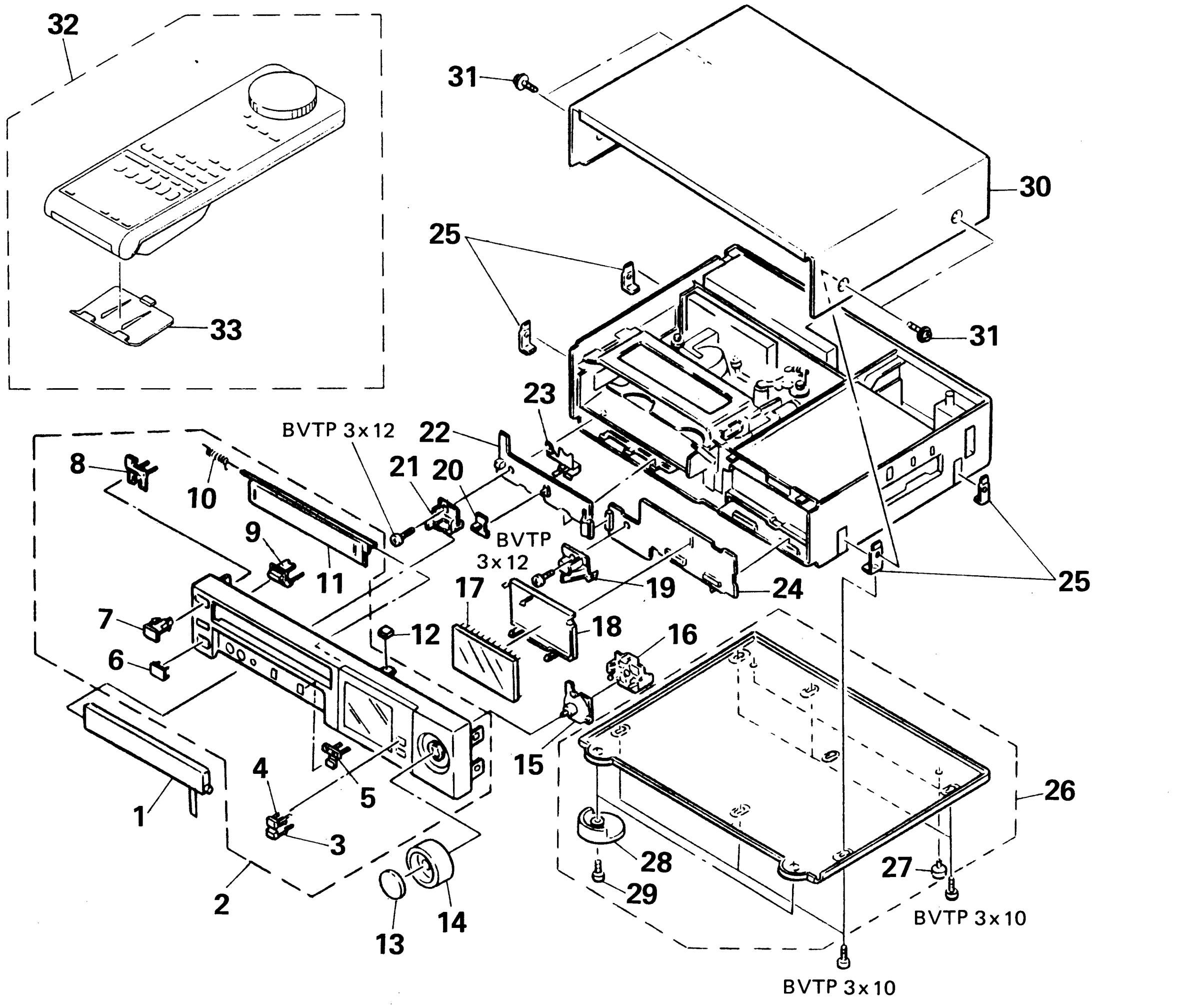
SECTION 5
EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts
  Example:
  (RED) . . . KNOB, BALANCE (WHITE)
  ↑ Cabinet's Color ↑ Parts Color

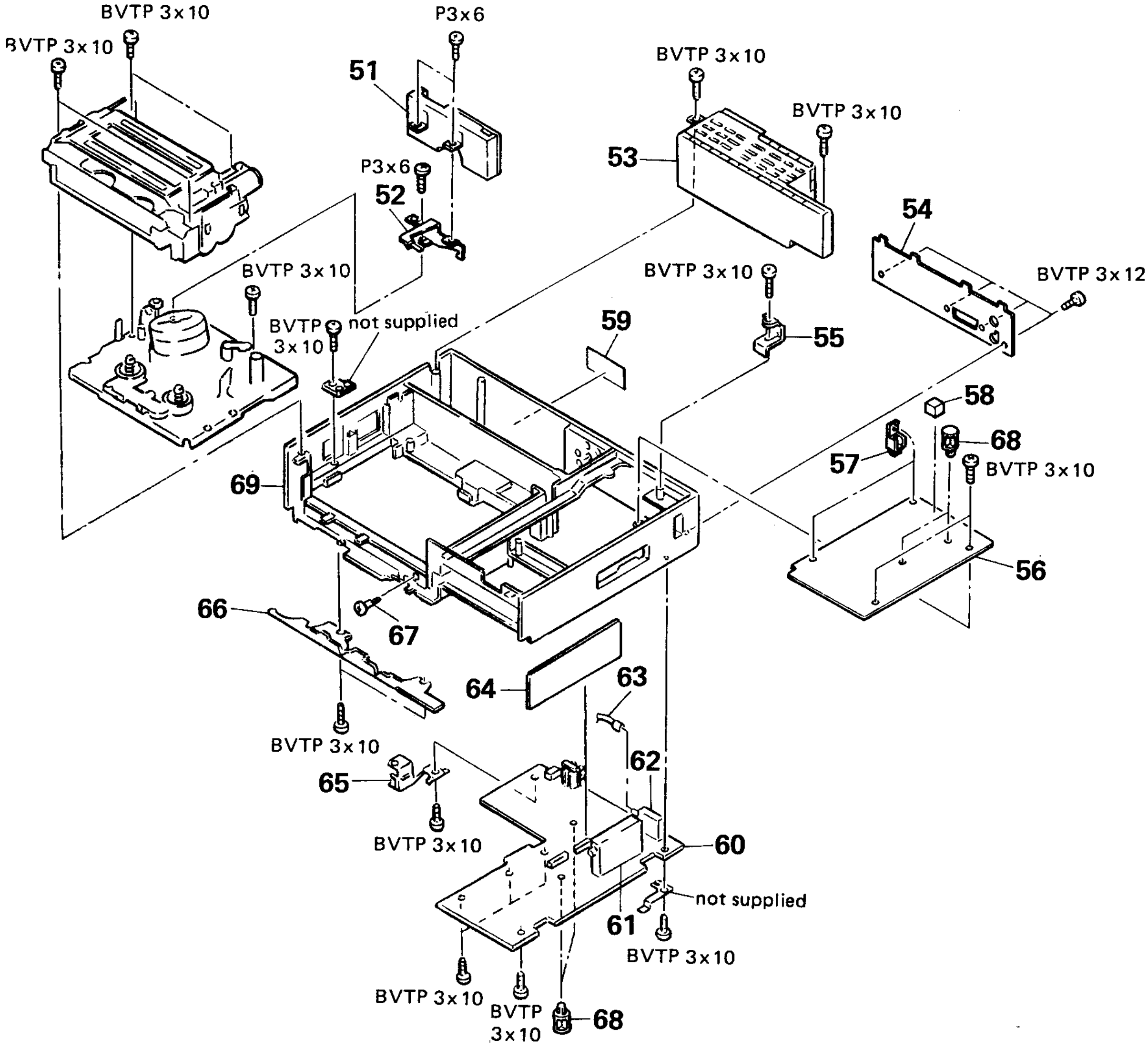
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

5-1. FRONT PANEL, CABINET ASSEMBLIES


32
31
30
33
25
31
23
BVTP 3x12
22
8
10
21 20
9
BVTP 3x12
11
17
19
24
25
7
12
18
16
6
15
4
5
26
1
3
28
27
29
2
13
14
BVTP 3x10
BVTP 3x10

No.	Part No.	Description	Remark
1	1-466-315-11	SWITCH BLOCK, CONTROL (SLV-373UB)	
	1-466-315-21	SWITCH BLOCK, CONTROL (SLV-373)	
	1-466-315-31	SWITCH BLOCK, CONTROL (SLV-373VP)	
2	X-3746-001-1	PANEL ASSY, FRONT (SLV-373VP)	3-11
	X-3746-002-1	PANEL ASSY, FRONT (SLV-373/373UB)	3-11
3	3-741-971-21	BUTTON, STOP (■)	
4	3-741-978-21	BUTTON, STOP (❚❚/▶◀)	
5	3-746-010-01	BUTTON, VPS (SLV-373VP)	
6	3-741-981-31	WINDOW, LAY CATCHER BLOCK	
7	3-741-973-01	BUTTON, POWER (ON/STANDBY)	
8	3-741-975-01	TIP, POWER BUTTON	
9	3-741-974-01	BUTTON, EJECT (⏏ EJECT)	
10	3-741-977-01	SPRING (FL), TORSION	
11	3-746-028-01	DOOR (E), CASSETTE	
12	9-911-841-XX	CUSHION (B)	
13	3-741-951-21	BUTTON, PLAY (▷ PLAY)	
14	3-741-952-01	RING, SHUTTLE	
15	*1-635-173-11	MF-96 BOARD	
16	*3-741-965-01	HOLDER, PC BOARD	
17	1-519-580-11	INDICATOR TUBE, FLUORESCENT	
18	*3-744-220-01	HOLDER, FL	
19	3-741-967-01	PLATE (RIGHT), FULCRUM, DOOR	
20	3-744-217-01	KNOB, SELECTION (COMMAND MODE)	
21	3-741-966-01	PLATE (LEFT), FULCRUM, DOOR	
22	*A-6754-047-A	MF-95 BOARD, COMPLETE (SLV-373UB)	
22	*A-6754-052-A	MF-95 BOARD, COMPLETE (SLV-373VP)	
	*A-6754-053-A	MF-95 BOARD, COMPLETE (SLV-373)	
23	3-741-968-01	PLATE, GROUND, MF	
24	*A-6721-328-A	MF-97 BOARD, COMPLETE (SLV-373UB)	
	*A-6721-330-A	MF-97 BOARD, COMPLETE (SLV-373VP)	
24	*A-6721-331-A	MF-97 BOARD, COMPLETE (SLV-373)	
25	*3-741-992-01	STOPPER, UPPER CASE	
26	X-3733-346-2	PLATE ASSY, BOTTOM	27-29
27	3-670-155-11	LEG	
28	X-3733-345-1	INSULATOR ASSY	
29	3-721-343-01	SCREW, FIXED, M4X7	
30	3-746-051-01	CASE, UPPER	
31	3-710-901-11	SCREW (3X8), TAPPING	
32	1-465-514-11	REMOTE COMMANDER ASSY (RMT-V373)	33
33	3-746-029-01	COVER, BATTERY	

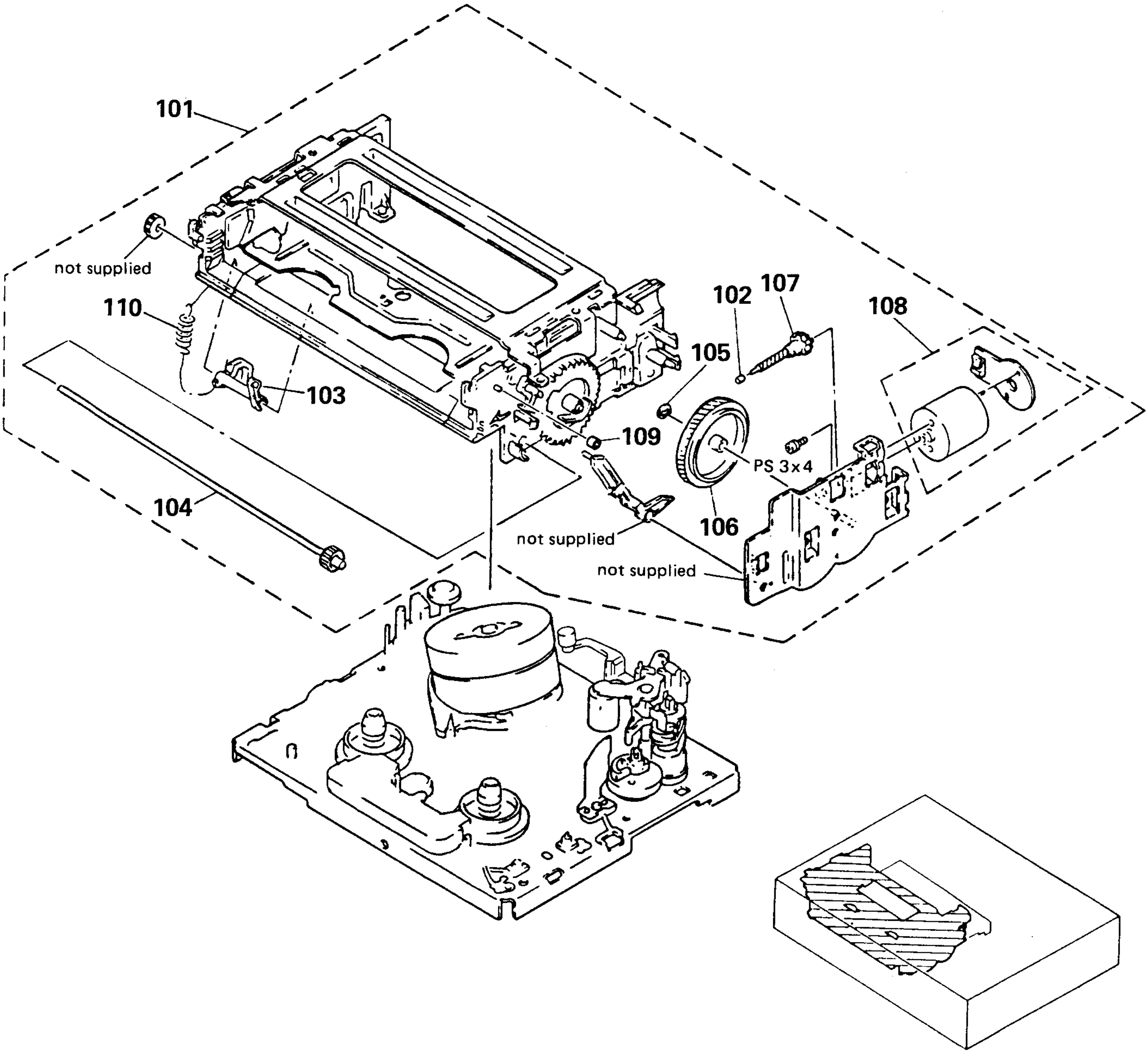
5-2. CHASSIS ASSEMBLY


BVTP 3x10
BVTP 3x10
P3x6
51
P3x6
52
BVTP 3x10
53
BVTP 3x10
54
BVTP 3x12
BVTP 3x10
BVTP 3x10
not supplied
BVTP 3x10
59
BVTP 3x10
55
58
68
57
BVTP 3x10
69
56
66
67
64
63
BVTP 3x10
62
65
BVTP 3x10
60
not supplied
61
BVTP 3x10
BVTP 3x10
BVTP 3x10
68

No.	Part No.	Description	Remark
51	*A-6727-189-A	RP-100 BOARD, COMPLETE	
52	X-3746-004-1	GROUND ASSY, SHAFT	
53	⚠1-413-535-11	BLOCK, POWER (SLV-373UB)	
	⚠1-413-537-11	BLOCK, POWER (SLV-373VP)	
	⚠1-413-538-11	BLOCK, POWER (SLV-373)	
54	3-746-011-01	PLATE, ORNAMENTAL, JACK	
55	*3-741-963-01	BRACKET, RF	
56	*A-6727-187-A	YC-90 BOARD, COMPLETE	
57	3-736-704-01	HINGE, PC BOARD	
58	9-911-843-XX	CUSHION	
59	*3-746-001-01	LABEL, MODEL NUMBER (NO.2) (SLV-373UB)	
	*3-746-002-01	LABEL, MODEL NUMBER (NO.2) (SLV-373)	
	*3-746-003-01	LABEL, MODEL NUMBER (NO.2) (SLV-373VP)	
60	*A-6725-799-A	MA-60 BOARD, COMPLETE (SLV-373UB)	
	*A-6725-801-A	MA-60 BOARD, COMPLETE (SLV-373VP)	
	*A-6725-802-A	MA-60 BOARD, COMPLETE (SLV-373)	
61	1-465-260-11	TUNER, ET (BTP-2C401) (SLV-373/373VP)	
	1-465-262-11	TUNER, ET (SLV-373UB)	
62	⚠1-466-328-11	MODULATOR, RF (RFU-2017) (SLV-373/373VP)	
	⚠1-466-347-11	MODULATOR, RF (RFU-2024) (SLV-373UB)	
63	1-558-924-41	CABLE, PIN	
64	*A-6713-386-A	CA-42 BOARD, COMPLETE	
65	*3-741-962-01	PLATE, GROUND, JMP	
66	3-741-953-03	ESCUTCHEON, FRAME	
67	3-741-948-11	SCREW (3), SPECIAL (+) TAPPING	
68	3-682-057-11	SPACER (SMALL)	
69	*3-741-990-01	FRAME, MOLD	

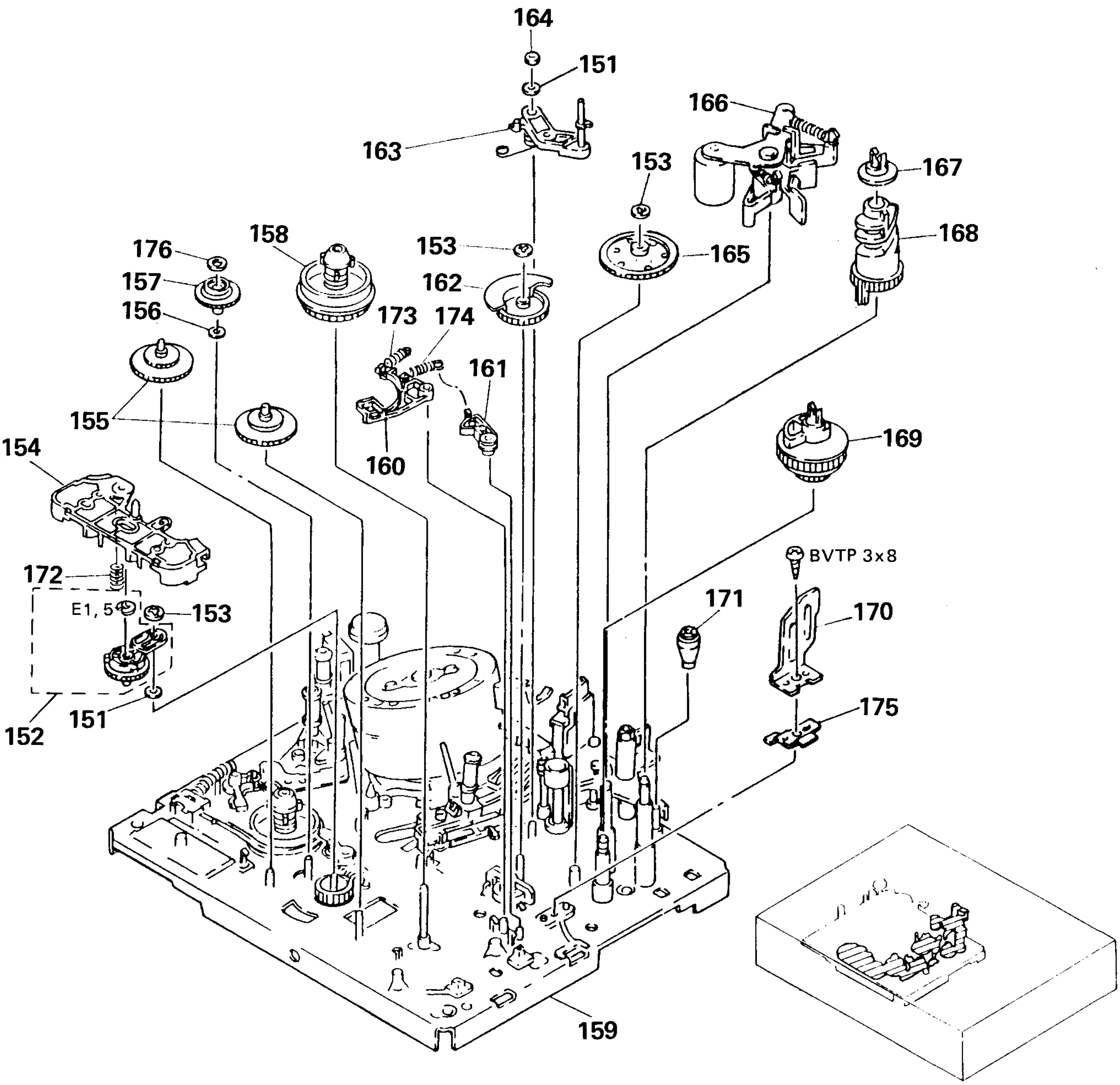
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

5-3. FL CASSETTE COMPARTMENT


101
not supplied
110
103
104
102
107
108
105
109
PS 3x4
106
not supplied
not supplied

No.	Part No.	Description	Remark
101	A-6751-421-A	FL BLOCK ASSY (M2)	102-110
102	3-716-144-02	RETAINER, WORM	
103	3-736-163-01	LEVER, ERASING PROTECTION	
104	X-3727-775-2	GEAR (RIGHT) ASSY, MIDWAY	
105	3-696-510-01	WASHER (3), STOPPER	
106	3-736-164-01	WHEEL (FL), WORM	
107	3-736-100-01	GEAR (FL), WORM	
108	X-3727-784-1	MOTOR ASSY (LOADING) (M904)	
109	3-696-388-01	RUBBER, JOINT	
110	3-739-687-01	SPRING, TENSION	

5-4. MECHANISM DECK 1


164
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176
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168
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157
162
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173
174
161
155
169
154
160
BVTP 3x8
172
171
E1, 5
153
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175
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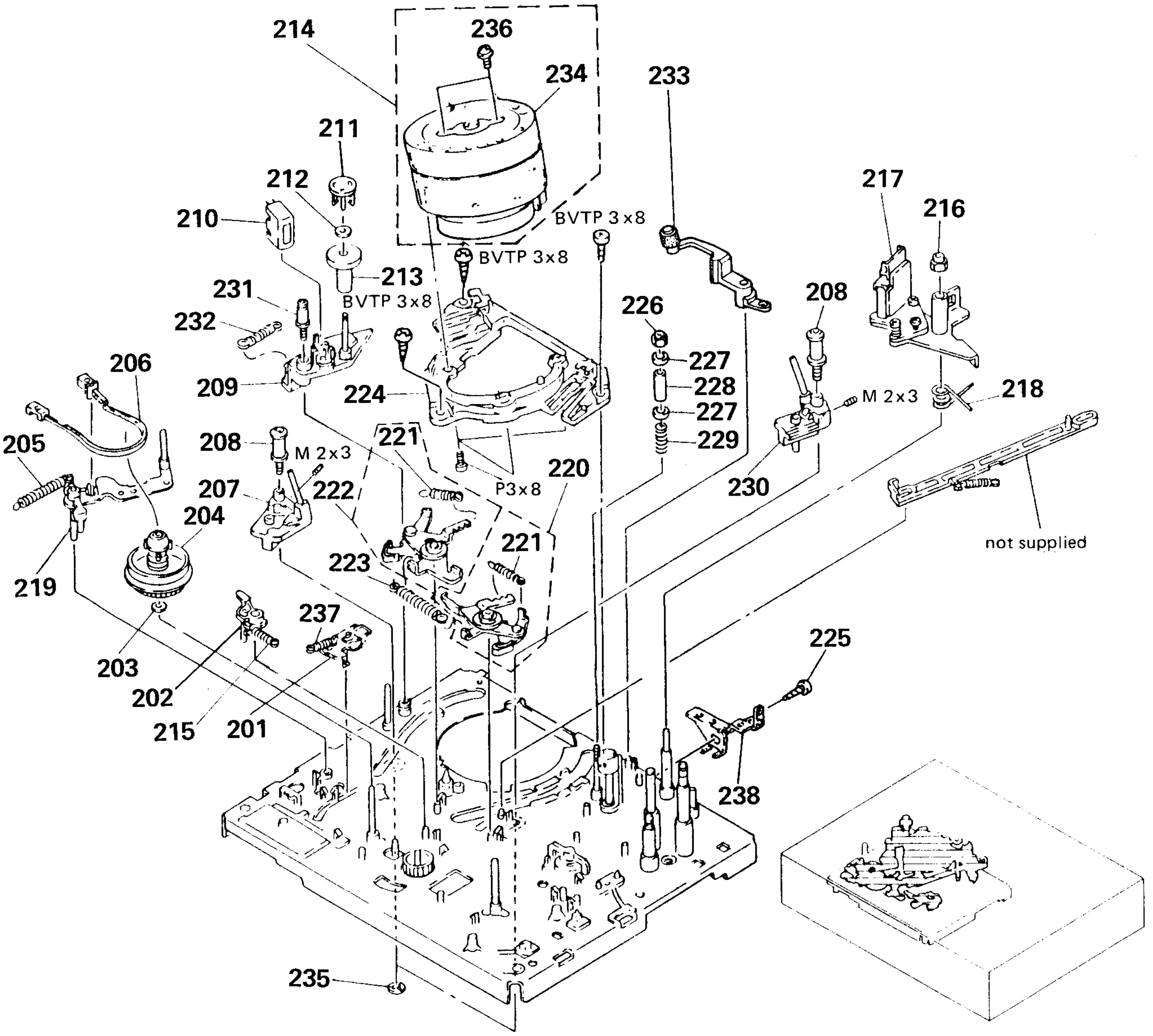
159

No.	Part No.	Description	Remark
151	3-701-438-11	WASHER, 2.5	
152	X-3727-776-1	ARM ASSY, PENDULUM	
153	3-669-595-00	WASHER (2), STOPPER	
154	3-736-172-02	RELEASE, LOCK, REEL	
155	X-3727-795-1	GEAR ASSY, RELAY	
156	3-736-074-01	RETAINER (SMALL), THRUST	
157	3-736-037-01	GEAR, REW	
158	X-3727-798-1	TABLE ASSY, REEL	
159	*A-6773-084-A	MD BLOCK ASSY 151-157,160-172,175,176 201-203,205-208,216,218,219,226-230 235,237,251-260,262,267-277,280-285 287-289,291,292,297	
160	X-3733-335-1	BRAKE ASSY (AT), T SOFT	
161	3-736-105-01	ARM, REV BRAKE	
162	3-736-143-01	GEAR, RVS CAM	

No.	Part No.	Description	Remark
163	X-3729-911-1	ARM ASSY, RVS	
164	3-736-740-01	NUT (M2X0.25), NYLON	
165	3-736-116-01	GEAR, COMMUNICATION	
166	X-3727-770-1	PINCH ROLLER BLOCK ASSY	
167	3-736-111-01	STOPPER	
168	3-736-136-01	CAM, ELEVATOR	
169	3-736-135-01	GEAR, PRESS CAM	
170	3-736-109-01	PLATE, OPEN, LID	
171	3-738-250-01	SCREW, AC ADJUSTMENT	
172	3-736-020-11	SPRING, COMPRESSION	
173	3-736-024-01	SPRING, TENSION	
174	3-736-025-01	SPRING (REV BRAKE), TENSION	
175	3-744-227-01	SPRING (ATOM), FL GROUND	
176	3-736-069-01	RETAINER, SPRING	

5-5. MECHANISM DECK 2


214
236
234
233
211
212
210
BVTP 3x8
BVTP 3x8
213
BVTP 3x8
231
232
226
208
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206
227
228
227
209
224
M 2x3
218
229
205
208
M 2x3
221
220
P3x8
207
222
230
204
221
not supplied
223
219
237
225
203
202
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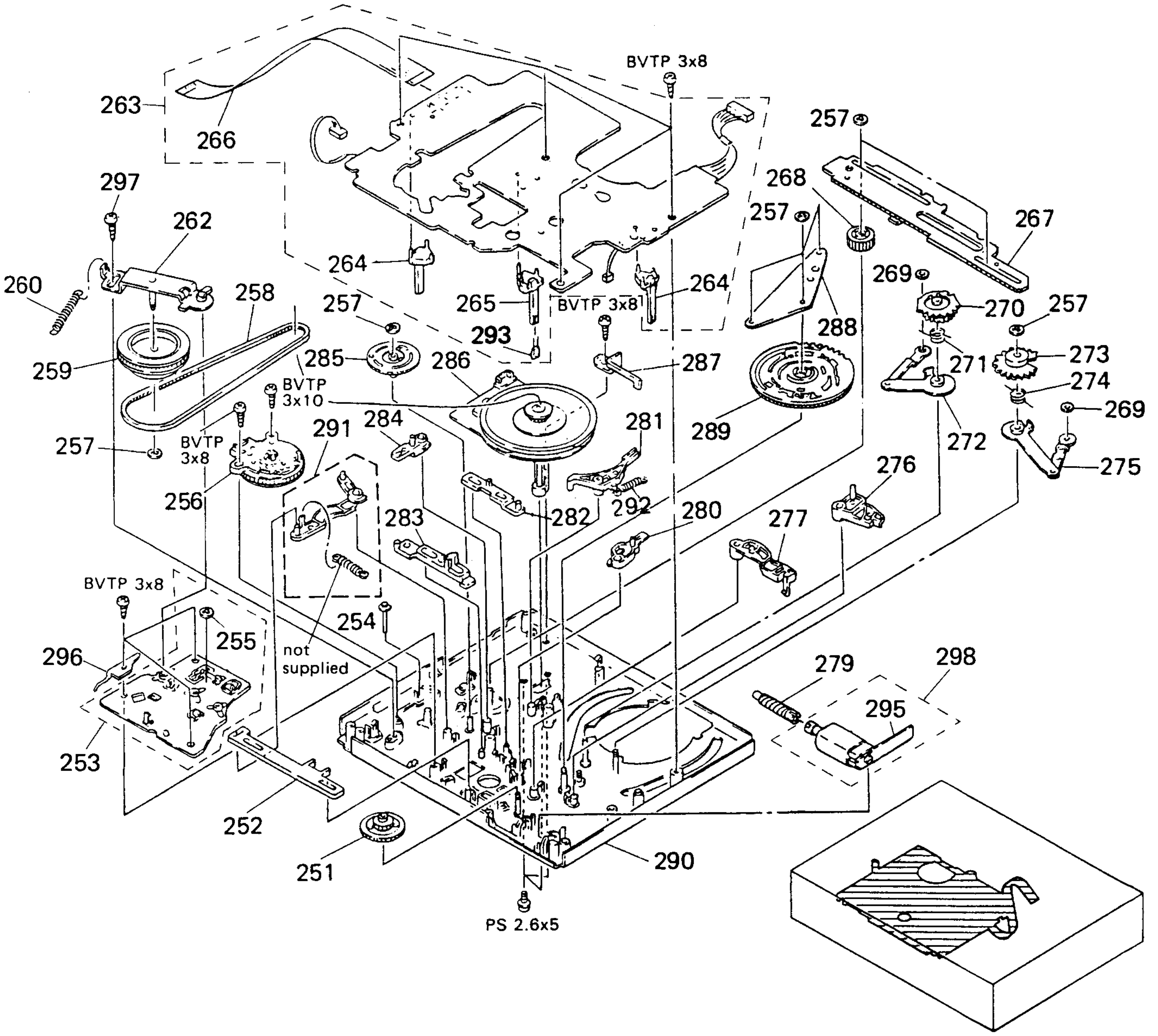
201
238
235

No.	Part No.	Description	Remark
201	A-6759-483-A	TAKE-UP BLOCK ASSY (AT), S	
202	3-736-075-01	BRAKE, S SOFT	
203	3-738-212-21	RETAINER, THRUST, REEL TABLE	
204	X-3729-935-3	TABLE ASSY, REEL, SUPPLY	
205	3-733-389-11	SPRING, TENSION	
206	X-3727-797-1	BAND ASSY, TENSION REGULATOR	
207	X-3727-786-1	SHUTTLE (LEFT) ASSY	
208	X-3733-301-1	ROLLER ASSY, GUIDE	
209	X-3727-767-1	BASE ASSY, STABILIZER	
210	1-543-647-11	HEAD, FE	
211	3-736-082-01	RETAINER, TS THRUST	
212	3-741-925-01	RING, RETAINING	
213	X-3727-771-1	STABLILIZER ASSY, TAPE	
214	⚠8-848-537-11	DRUM ASSY (DZH-21A-R) (M901)	234, 236
215	3-736-047-01	SPRING (S SOFT), TENSION	
216	3-736-041-01	NUT (N3), NYLON	
217	A-6761-129-A	HEAD BLOCK ASSY, ACE	
218	3-736-042-01	SPRING, TORSION	
219	3-736-151-11	ARM (POM), TENSION REGULATOR	
220	X-3729-926-1	BRAKE ASSY (2), T	221
221	3-738-220-01	SPRING (MAIN BRAKE 2), TENSION	
222	X-3733-336-2	BRAKE ASSY (2) (AT), S	221
223	3-738-221-01	SPRING (MAIN BRAKE 1), TENSION	
224	*X-3746-005-1	BASE ASSY (G), DRUM	
225	3-736-055-01	SCREW (3X8), TAPPING	
226	3-736-740-01	NUT (M2X0.25), NYLON	
227	3-736-733-01	FLANGE, 7 GUIDE	
228	3-736-730-01	SLEEVE, #7 GUIDE	
229	3-736-729-01	SPRING, COMPRESSION	
230	X-3727-787-1	SHUTTLE (RIGHT) ASSY	
231	X-3727-788-1	ROLLER ASSY, GUIDE, #2	
232	3-736-745-01	SPRING	
233	A-6747-267-C	ARM BLOCK ASSY (S), C ROLLER	
234	8-848-540-01	UPPER DRUM ASSY (DZR-21R)	
235	3-736-073-01	SLIDER, POLYETHYLENE	
236	2-643-205-01	SCREW, FITTING +PW 3X8, UPPER DRUM	
237	3-738-284-01	SPRING, TENSION	
238	*3-738-249-01	PLATE, FIXED, MD	

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

5-6. MECHANISM DECK 3


BVTP 3x8
263
266
257
297
268
262
257
267
260
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264
269
264
257
265
BVTP 3x8
270
257
293
288
273
259
285
286
287
271
274
BVTP 3x10
269
284
281
289
257
BVTP 3x8
291
272
275
276
256
283
282
292
280
277
BVTP 3x8
254
255
not supplied
279
298
296
295
253
252
290
251
PS 2.6x5

No.	Part No.	Description	Remark
251	3-736-015-01	WHEEL (CAM), WORM	
252	3-736-158-01	PLATE, SLIDE, PENDULUM	
253	A-6739-084-A	CHASSIS BLOCK ASSY, SUB	255
254	3-736-091-01	PIN, SWITCH	
255	3-669-465-00	WASHER (1.5), STOPPER	
256	1-571-920-11	SWITCH, ROTARY (S1)	
257	3-669-595-00	WASHER (2), STOPPER	
258	3-736-013-01	BELT, TIMING	
259	X-3727-782-1	PULLEY ASSY	
260	3-736-089-01	SPRING, TENSION	
262	X-3727-761-1	ARM ASSY, ADJUSTMENT	
263	*A-6754-055-A	MD-40 BOARD, COMPLETE	264, 265, 293
264	3-736-149-01	HOLDER, ST SENSOR	
265	*3-736-144-01	HOLDER, LED	
267	3-736-177-01	PLATE, SLIDE, MODE	
268	3-733-394-01	GEAR, RVS RELAY	
269	3-736-073-01	SLIDER, POLYETHYLENE	
270	3-736-148-01	GEAR (RIGHT), THREADING	
271	3-736-092-01	SPRING (RIGHT), TORSION	
272	X-3727-777-1	ARM (RIGHT) ASSY, THREADING	
273	3-736-147-01	GEAR (LEFT), THREADING	
274	3-736-040-01	SPRING (LEFT), TORSION	
275	X-3727-778-1	ARM (LEFT) ASSY, THREADING	
276	3-736-142-01	ARM, TENSION REGULATOR FUNCTION	
277	3-736-140-03	ARM, S TAKE-UP	
278	X-3733-302-1	MOTOR ASSY, CAM (M903)	295
279	3-733-395-01	GEAR (CAM), WORM	
280	3-733-397-01	ARM, BRAKE FUNCTION	
281	X-3733-338-1	BRAKE ASSY (AT), CAP	
282	3-733-398-04	PLATE, SLIDE, BRAKE	
283	3-736-103-03	PLATE, SLIDE, LIMITER	
284	3-736-016-01	ARM, LIMITER FUNCTION	
285	3-736-170-01	GEAR, RKB CAM	
286	8-835-382-01	MOTOR, DC U-26B (CAPSTAN) (M902)	
287	3-736-744-01	RETAINER, ROTOR	
288	3-733-396-01	HOLDER, CAM GEAR	
289	3-736-176-01	GEAR, CAM	
291	3-736-139-03	ARM, PENDULUM FUNCTION	
292	3-738-237-01	SPRING (CAP BRAKE), TENSION	
293	8-719-974-65	DIODE GL451V (D001)	
295	*1-633-460-11	CA-41 BOARD	
296	3-741-950-01	SPRING (AT), LEAF, SC GROUND	
297	3-733-386-01	SCREW (3X8), WASHER	

CA-42

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- SEMICONDUCTORS
  In each case, U: μ, for example:
  UA. . . : μA. . . , UPA. . . : μPA. . . ,
  UPB. . . : μPB. . . , UPC. . . : μPC. . . ,
  UPD. . . : μPD. . .
- CAPACITORS
  MF: μF, PF: μμF
- COILS
  MMH: mH, UH: μH

Ref.No	Part No.	Description				Remark
	*A-6713-386-A	CA-42 BOARD, COMPLETE **********************				
	*3-746-016-02	CASE (MAIN), AU				
	*3-746-017-01	CASE (LOWER), AU				
		CAPACITOR				
C101	1-161-047-00	CERAMIC	0.0047MF	10%	25V	
C102	1-164-070-11	CERAMIC	100PF	5%	50V	
C103	1-162-839-11	CERAMIC	0.01MF	10%	16V	
C104	1-126-157-11	ELECT	10MF	20%	6.3V	
C105	1-164-091-11	CERAMIC	0.0022MF	10%	50V	
C106	1-124-499-11	ELECT	1MF	20%	50V	
C107	1-164-097-11	CERAMIC	0.022MF		50V	
C108	1-126-154-11	ELECT	47MF	20%	6.3V	
C109	1-126-160-11	ELECT	1MF	20%	50V	
C110	1-164-046-11	CERAMIC	10PF	0.5PF	50V	
C111	1-126-154-11	ELECT	47MF	20%	6.3V	
C112	1-164-096-11	CERAMIC	0.01MF		50V	
C113	1-126-154-11	ELECT	47MF	20%	6.3V	
C250	1-109-675-11	MICA	120PF	5%	500V	
C251	1-124-589-11	ELECT	47MF	20%	10V	
C252	1-164-083-11	CERAMIC	680PF	10%	50V	
C254	1-164-092-11	CERAMIC	0.0033MF	10%	25V	
C255	1-126-160-11	ELECT	1MF	20%	50V	
C256	1-124-465-00	ELECT	0.47MF	20%	50V	
C257	1-124-589-11	ELECT	47MF	20%	10V	
C258	1-130-483-00	MYLAR	0.01MF	5%	50V	
C259	1-126-160-11	ELECT	1MF	20%	50V	
C260	1-164-085-11	CERAMIC	0.001MF	10%	50V	
C261	1-124-234-00	ELECT	22MF	20%	10V	
C263	1-164-086-11	CERAMIC	0.0012MF	10%	50V	
C264	1-102-978-00	CERAMIC	220PF	5%	50V	
C265	1-126-160-11	ELECT	1MF	20%	50V	
C266	1-124-589-11	ELECT	47MF	20%	10V	
C267	1-124-589-11	ELECT	47MF	20%	10V	
C268	1-126-160-11	ELECT	1MF	20%	50V	
C269	1-126-160-11	ELECT	1MF	20%	50V	
C270	1-126-160-11	ELECT	1MF	20%	50V	
C271	1-130-488-00	MYLAR	0.027MF	5%	50V	
C273	1-130-488-00	MYLAR	0.027MF	5%	50V	
C274	1-126-094-11	ELECT	4.7MF	20%	16V	
C275	1-124-589-11	ELECT	47MF	20%	10V	
C276	1-164-087-11	CERAMIC	0.0015MF	10%	50V	
C277	1-162-839-11	CERAMIC	0.01MF	10%	16V	
C278	1-136-558-11	FILM	0.0039MF	10%	630V	
C285	1-164-083-11	CERAMIC	680PF	10%	50V	
		CONNECTOR				
CN101	1-506-482-11	PIN, CONNECTOR 3P				
CN102	*1-563-465-11	SOCKET, CONNECTOR 14P				
CN201	*1-563-676-11	SOCKET, CONNECTOR 9P				
CN213	1-506-482-11	PIN, CONNECTOR 3P				
CN214	1-506-469-11	PIN, CONNECTOR 4P				
CN215	1-506-468-11	PIN, CONNECTOR 3P				
		DIODE				
D101	8-719-911-19	DIODE 1SS19				
D102	8-719-991-19	DIODE 1SS19				
D103	8-719-991-19	DIODE 1SS19				
D104	8-719-991-19	DIODE 1SS19				
D105	8-719-991-19	DIODE 1SS19				
D106	8-719-991-19	DIODE 1SS19				
		IC				
IC101	8-759-632-58	IC M52435P				
IC102	8-759-000-49	IC MC14066BCP				
IC257	8-759-805-20	IC LA7297				
		COIL				
L101	1-408-413-00	INDUCTOR	22UH			
L251	1-410-070-21	INDUCTOR	8.2MMH			
L252	1-412-092-11	INDUCTOR, SMALL TYPE	22MMH			
L253	1-410-687-11	INDUCTOR	1.2MMH			
L255	1-408-409-00	INDUCTOR	10UH			
		TRANSISTOR				
Q101	8-729-920-70	TRANSISTOR 2SC1740S-QR				
Q102	8-729-900-89	TRANSISTOR DTC144ES				
Q103	8-729-900-89	TRANSISTOR DTC144ES				
Q104	8-729-115-10	TRANSISTOR 2SK105A-10				
Q107	8-729-920-70	TRANSISTOR 2SC1740S-QR				
Q251	8-729-926-14	TRANSISTOR 2SD1292				
		RESISTOR				
R101	1-249-437-11	CARBON	47K	5%	1/4W	
R102	1-249-433-11	CARBON	22K	5%	1/4W	
R103	1-249-433-11	CARBON	22K	5%	1/4W	
R104	1-249-429-11	CARBON	10K	5%	1/4W	
R105	1-249-433-11	CARBON	22K	5%	1/4W	
R106	1-249-429-11	CARBON	10K	5%	1/4W	
R107	1-249-429-11	CARBON	10K	5%	1/4W	
R108	1-247-887-00	CARBON	220K	5%	1/4W	
R109	1-249-441-11	CARBON	100K	5%	1/4W	
R110	1-249-405-11	CARBON	100	5%	1/4W	
R111	1-247-885-00	CARBON	180K	5%	1/4W	
R112	1-247-887-00	CARBON	220K	5%	1/4W	
R113	1-249-429-11	CARBON	10K	5%	1/4W	
R114	1-247-889-00	CARBON	270K	5%	1/4W	
R115	1-249-413-11	CARBON	470	5%	1/4W	
R116	1-249-417-11	CARBON	1K	5%	1/4W	
R117	1-249-429-11	CARBON	10K	5%	1/4W	
R118	1-249-437-11	CARBON	47K	5%	1/4W	
R119	1-249-429-11	CARBON	10K	5%	1/4W	
R120	1-249-429-11	CARBON	10K	5%	1/4W	
R121	1-249-433-11	CARBON	22K	5%	1/4W	

Ref.No	Part No.	Description				Remark
R122	1-249-427-11	CARBON	6.8K	5%	1/4W	
R124	1-249-433-11	CARBON	22K	5%	1/4W	
R125	1-249-437-11	CARBON	47K	5%	1/4W	
R126	1-249-437-11	CARBON	47K	5%	1/4W	
R127	1-249-429-11	CARBON	10K	5%	1/4W	
R128	1-249-433-11	CARBON	22K	5%	1/4W	
R129	1-249-437-11	CARBON	47K	5%	1/4W	
R252	1-249-393-11	CARBON	10	5%	1/4W	
R253	1-249-412-11	CARBON	390	5%	1/4W	
R254	1-249-411-11	CARBON	330	5%	1/4W	
R255	1-247-885-00	CARBON	180K	5%	1/4W	
R256	1-249-430-11	CARBON	12K	5%	1/4W	
R257	1-249-437-11	CARBON	47K	5%	1/4W	
R258	1-249-436-11	CARBON	39K	5%	1/4W	
R259	1-249-423-11	CARBON	3.3K	5%	1/4W	
R260	1-247-903-00	CARBON	1M	5%	1/4W	
R262	1-249-441-11	CARBON	100K	5%	1/4W	
R263	1-249-432-11	CARBON	18K	5%	1/4W	
R264	1-249-429-11	CARBON	10K	5%	1/4W	
R265	1-249-429-11	CARBON	10K	5%	1/4W	
R266	1-249-429-11	CARBON	10K	5%	1/4W	
R267	1-249-429-11	CARBON	10K	5%	1/4W	
R268	1-249-429-11	CARBON	10K	5%	1/4W	
R269	1-249-407-11	CARBON	150	5%	1/4W	
R270	1-249-422-11	CARBON	2.7K	5%	1/4W	
R272	1-249-416-11	CARBON	820	5%	1/4W	
R273	1-249-428-11	CARBON	8.2K	5%	1/4W	
R274	1-249-429-11	CARBON	10K	5%	1/4W	
R275	1-249-387-11	CARBON	3.3	5%	1/4W	F
R276	1-249-433-11	CARBON	22K	5%	1/4W	
R291	1-249-436-11	CARBON	39K	5%	1/4W	

VARIABLE RESISTOR

RV251	1-230-500-11	RES, ADJ, CARBON 220K

TRANSFORMER

T251	1-433-330-11	TRANSFORMER, BIAS OSCILLATION

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*A-6721-330-A MF-97 BOARD, COMPLETE
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*3-744-220-04 HOLDER, FL

CAPACITOR

Ref.No	Part No.	Description			Remark
C001	1-164-027-11	CERAMIC	22PF	5%	50V
C002	1-164-056-11	CERAMIC	27PF	5%	50V
C003	1-164-056-11	CERAMIC	27PF	5%	50V
C004	1-164-159-11	CERAMIC	0.1MF		50V
C005	1-164-159-11	CERAMIC	0.1MF		50V
C006	1-125-486-11	DOUBLE LAYERS	0.22F		5.5V
C007	1-164-159-11	CERAMIC	0.1MF		50V
C008	1-126-096-11	ELECT	10MF	20%	35V
C009	1-164-159-11	CERAMIC	0.1MF		50V
C010	1-161-327-00	CERAMIC	0.0033MF	30%	16V
C012	1-161-374-11	CERAMIC	0.0015MF	30%	16V
C095	1-161-379-00	CERAMIC	0.01MF	30%	16V
C096	1-161-379-00	CERAMIC	0.01MF	30%	16V
C097	1-161-379-00	CERAMIC	0.01MF	30%	16V
C099	1-161-379-00	CERAMIC	0.01MF	30%	16V

CONNECTOR

CN001	1-569-342-11	CONNECTOR, BOARD TO BOARD 19P
CN002	1-569-342-11	CONNECTOR, BOARD TO BOARD 19P
CN003	1-565-309-11	CONNECTOR, FLEXIBLE 4P
CN004	1-569-339-11	CONNECTOR, BOARD TO BOARD 7P
CN005	1-568-673-11	CONNECTOR, BOARD TO BOARD 14P

TRIMMER

CV001	1-141-291-11	CAP, TRIMMER 20PF

DIODE

D001	8-719-974-59	DIODE 1SR139-100
D002	8-719-974-59	DIODE 1SR139-100
D004	8-719-947-35	DIODE RD8.2ES-B2
D010	8-719-109-97	DIODE RD6.8ES-B2
D011	8-719-109-97	DIODE RD6.8ES-B2
D012	8-719-947-27	DIODE MTZJ-T-72-6.8

INDICATOR TUBE

FL001	1-519-580-11	INDICATOR TUBE, FLUORESCENT

IC

IC001	8-752-813-21	IC CXP50116-050Q
IC002	8-759-995-76	IC PST529C
IC003	8-759-971-15	IC PST529H

RESISTOR

R001	1-249-433-11	CARBON	22K	5%	1/4W
R002	1-247-895-00	CARBON	470K	5%	1/4W
R004	1-249-423-11	CARBON	3.3K	5%	1/4W
R005	1-249-419-11	CARBON	1.5K	5%	1/4W
R007	1-249-429-11	CARBON	10K	5%	1/4W
R009	1-249-419-11	CARBON	1.5K	5%	1/4W
R011	1-249-419-11	CARBON	1.5K	5%	1/4W
R012	1-249-420-11	CARBON	1.8K	5%	1/4W
R015	1-249-425-11	CARBON	4.7K	5%	1/4W
R016	1-249-425-11	CARBON	4.7K	5%	1/4W
R017	1-249-425-11	CARBON	4.7K	5%	1/4W
R018	1-249-425-11	CARBON	4.7K	5%	1/4W
R019	1-249-425-11	CARBON	4.7K	5%	1/4W
R020	1-249-425-11	CARBON	4.7K	5%	1/4W
R021	1-249-425-11	CARBON	4.7K	5%	1/4W
R022	1-249-425-11	CARBON	4.7K	5%	1/4W

When indicating parts by reference number, please include the board name.

Ref.No	Part No.	Description				Remark
R094	1-249-417-11	CARBON	1K	5%	1/4W	
R095	1-249-417-11	CARBON	1K	5%	1/4W	
		SWITCH				
S001	1-571-977-11	SWITCH, TACTIL (PAUSE)				
S002	1-571-977-11	SWITCH, TACTIL (STOP)				
		CRYSTAL				
X001	1-567-519-11	VIBRATOR, CRYSTAL (4.19MHz)				
X002	1-567-098-00	VIBRATOR, CRYSTAL (32.768KHz)				

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*A-6725-801-A MA-60 BOARD, COMPLETE

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Ref.No	Part No.	Description				Remark
	1-558-924-41	CABLE, PIN				
		BUZZER				
BZ501	1-529-070-11	BUZZER				
		CAPACITOR				
C107	1-126-101-11	ELECT	100MF	20%	16V	
C110	1-124-589-11	ELECT	47MF	20%	10V	
C201	1-162-839-11	CERAMIC	0.01MF	10%	16V	
C202	1-164-058-11	CERAMIC	33PF	5%	50V	
C203	1-102-824-00	CERAMIC	470PF	5%	50V	
C204	1-164-056-11	CERAMIC	27PF	5%	50V	
C205	1-162-839-11	CERAMIC	0.01MF	10%	16V	
C206	1-161-772-11	CERAMIC	0.1MF	20%	16V	
C207	1-124-234-00	ELECT	22MF	20%	16V	
C208	1-162-839-11	CERAMIC	0.01MF	10%	16V	
C303	1-130-483-00	MYLAR	0.01MF	5%	50V	
C304	1-124-120-11	ELECT	220MF	20%	25V	
C351	1-130-495-00	MYLAR	0.1MF	5%	50V	
C352	1-124-234-00	ELECT	22MF	20%	16V	
C353	1-164-096-11	CERAMIC	0.01MF		50V	
C355	1-126-157-11	ELECT	10MF	20%	16V	
C356	1-161-772-11	CERAMIC	0.1MF	20%	16V	
C401	1-162-847-11	CERAMIC	0.047MF	20%	16V	
C402	1-162-847-11	CERAMIC	0.047MF	20%	16V	
C403	1-124-589-11	ELECT	47MF	20%	10V	
C404	1-102-961-00	CERAMIC	27PF	5%	50V	
C405	1-164-060-11	CERAMIC	39PF	5%	50V	
C406	1-124-589-11	ELECT	47MF	20%	16V	
C407	1-164-058-11	CERAMIC	33PF	5%	50V	(SLV-373VP)
C408	1-126-096-11	ELECT	10MF	20%	25V	
C409	1-124-589-11	ELECT	47MF	20%	10V	
C410	1-162-839-11	CERAMIC	0.01MF	10%	16V	
C411	1-124-589-11	ELECT	47MF	20%	10V	
C413	1-162-839-11	CERAMIC	0.01MF	10%	16V	
C414	1-162-839-11	CERAMIC	0.01MF	10%	16V	
C415	1-162-203-31	CERAMIC	15PF	5%	50V	

Ref.No	Part No.	Description				Remark
C416	1-164-025-91	CERAMIC	18PF	5%	50V	
C417	1-162-839-11	CERAMIC	0.01MF	10%	16V	
C419	1-162-857-91	CERAMIC	0.0047MF	20%	16V	
C420	1-164-085-11	CERAMIC	0.001MF	10%	50V	
C421	1-124-925-11	ELECT	2.2MF	20%	50V	
C423	1-124-589-11	ELECT	47MF	20%	16V	
C424	1-162-839-11	CERAMIC	0.01MF	10%	16V	
C450	1-161-772-11	CERAMIC	0.1MF	20%	16V	
C451	1-126-154-11	ELECT	47MF	20%	6.3V	
C452	1-161-772-11	CERAMIC	0.1MF	20%	16V	
C453	1-102-980-00	CERAMIC	270PF	5%	50V	
C454	1-102-980-00	CERAMIC	270PF	5%	50V	
C457	1-164-091-11	CERAMIC	0.0022MF	10%	50V	
C458	1-162-843-11	CERAMIC	0.022MF	20%	16V	
C459	1-126-160-11	ELECT	1MF	20%	50V	
C461	1-164-082-11	CERAMIC	560PF	10%	50V	
C466	1-124-589-11	ELECT	47MF	20%	16V	
C467	1-162-839-11	CERAMIC	0.01MF	10%	16V	
C501	1-124-584-00	ELECT	100MF	20%	10V	
C502	1-164-159-11	CERAMIC	0.1MF		50V	
C503	1-162-839-11	CERAMIC	0.01MF	10%	16V	
C504	1-164-049-11	CERAMIC	13PF	5%	50V	
C505	1-164-049-11	CERAMIC	13PF	5%	50V	
C506	1-161-772-11	CERAMIC	0.1MF	20%	16V	
C507	1-162-854-91	CERAMIC	0.0015MF	20%	16V	
C551	1-161-772-11	CERAMIC	0.1MF	20%	16V	
C552	1-124-589-11	ELECT	47MF	20%	10V	
C553	1-164-058-11	CERAMIC	33PF	5%	50V	
C554	1-164-058-11	CERAMIC	33PF	5%	50V	
C555	1-162-853-91	CERAMIC	0.001MF	20%	16V	
C601	1-124-925-11	ELECT	2.2MF	20%	50V	
C602	1-124-925-11	ELECT	2.2MF	20%	50V	
C603	1-124-925-11	ELECT	2.2MF	20%	50V	
C604	1-124-925-11	ELECT	2.2MF	20%	50V	
C605	1-124-925-11	ELECT	2.2MF	20%	50V	
C607	1-124-646-91	ELECT	22MF	20%	16V	
C608	1-124-234-00	ELECT	22MF	20%	16V	
C609	1-124-234-00	ELECT	22MF	20%	16V	
C610	1-124-234-00	ELECT	22MF	20%	16V	
C611	1-162-839-11	CERAMIC	0.01MF	10%	16V	
C612	1-161-772-11	CERAMIC	0.1MF	20%	16V	
C613	1-126-101-11	ELECT	100MF	20%	16V	
C614	1-126-154-11	ELECT	47MF	20%	6.3V	
C615	1-126-154-11	ELECT	47MF	20%	6.3V	
C621	1-126-154-11	ELECT	47MF	20%	6.3V	
C622	1-162-839-11	CERAMIC	0.01MF	10%	16V	
C624	1-124-472-11	ELECT	470MF	20%	6.3V	
C625	1-124-443-00	ELECT	100MF	20%	10V	
C626	1-101-361-00	CERAMIC	150PF	5%	50V	
C627	1-101-361-00	CERAMIC	150PF	5%	50V	
C628	1-164-085-11	CERAMIC	0.001MF	10%	50V	
C630	1-164-085-11	CERAMIC	0.001MF	10%	50V	
C632	1-161-772-11	CERAMIC	0.1MF	20%	16V	

When indicating parts by reference number, please include the board name.

Ref.No	Part No.	Description	Remark
C633	1-126-101-11	ELECT 100MF 20% 16V	
C670	1-126-160-11	ELECT 1MF 20% 50V	
C671	1-126-163-11	ELECT 4.7MF 20% 50V	
C700	1-124-234-00	ELECT 22MF 20% 16V	
C703	1-124-927-11	ELECT 4.7MF 20% 50V	
C705	1-164-096-11	CERAMIC 0.01MF 50V	
C706	1-124-589-11	ELECT 47MF 20% 16V	
C710	1-126-233-11	ELECT 22MF 20% 50V	
C711	1-164-056-11	CERAMIC 27PF 5% 50V	
C713	1-164-056-11	CERAMIC 27PF 5% 50V	(SLV-373UB)
C713	1-164-064-11	CERAMIC 56PF 5% 50V	(SLV-373/373VP)
C715	1-124-443-00	ELECT 100MF 20% 10V	
C716	1-164-065-91	CERAMIC 62PF 5% 50V	(SLV-373/373VP)
C716	1-164-068-11	CERAMIC 82PF 5% 50V	(SLV-373UB)
C717	1-124-242-00	ELECT 33MF 20% 16V	
C718	1-164-089-11	CERAMIC 0.0022MF 50V	
C719	1-164-089-11	CERAMIC 0.0022MF 50V	
C721	1-124-927-11	ELECT 4.7MF 20% 50V	
C723	1-124-499-11	ELECT 1MF 20% 50V	(SLV-373/373UB)
C726	1-124-242-00	ELECT 33MF 20% 16V	
C727	1-161-379-00	CERAMIC 0.01MF 30% 16V	
C751	1-162-827-11	CERAMIC 0.001MF 10% 16V	(SLV-373VP)
C752	1-162-827-11	CERAMIC 0.001MF 10% 16V	(SLV-373VP)
C753	1-162-827-11	CERAMIC 0.001MF 10% 16V	(SLV-373VP)
C754	1-162-827-11	CERAMIC 0.001MF 10% 16V	(SLV-373VP)
C755	1-162-827-11	CERAMIC 0.001MF 10% 16V	(SLV-373VP)
C759	1-126-154-11	ELECT 47MF 20% 6.3V	
C760	1-162-839-11	CERAMIC 0.01MF 10% 16V	
C761	1-164-050-11	CERAMIC 15PF 5% 50V	(SLV-373UB)
C801	1-164-159-11	CERAMIC 0.1MF 50V	(SLV-373VP)
C802	1-162-847-11	CERAMIC 0.047MF 20% 16V	(SLV-373VP)
C803	1-164-058-11	CERAMIC 33PF 5% 50V	(SLV-373VP)
C804	1-162-847-11	CERAMIC 0.047MF 20% 16V	(SLV-373VP)
C805	1-164-058-11	CERAMIC 33PF 5% 50V	(SLV-373VP)
C806	1-161-057-00	CERAMIC 0.033MF 20% 16V	(SLV-373VP)
C810	1-162-284-31	CERAMIC 150PF 10% 50V	(SLV-373VP)
C951	1-124-925-11	ELECT 2.2MF 20% 50V	

FILTER

Ref.No	Part No.	Description	Remark
CF801	1-567-160-21	OSCILLATOR, CERAMIC	

CONNECTOR

Ref.No	Part No.	Description	Remark
CN201	1-569-338-11	CONNECTOR, BOARD TO BOARD 19P	
CN202	1-569-338-11	CONNECTOR, BOARD TO BOARD 19P	
CN203	1-506-982-11	PIN, CONNECTOR 14P	
CN204	1-506-475-11	PIN, CONNECTOR 10P	
CN205	1-506-473-11	PIN, CONNECTOR 8P	
CN206	1-506-476-11	PIN, CONNECTOR 11P	
CN208	1-569-344-11	CONNECTOR, BOARD TO BOARD 19P	
CN209	1-569-344-11	CONNECTOR, BOARD TO BOARD 19P	
CN210	1-569-341-11	CONNECTOR, BOARD TO BOARD 19P	
CN216	1-561-534-00	SOCKET 21P	
CN218	*1-566-249-11	PIN, CONNECTOR 9P	

JACK

Ref.No	Part No.	Description	Remark
CNJ951	1-507-562-00	JACK (SIRCS)	

TRIMMER

Ref.No	Part No.	Description	Remark
CV401	1-141-227-00	CAP, CERAMIC TRIMMER	

DIODE

Ref.No	Part No.	Description	Remark
D301	8-719-911-19	DIODE 1SS119	
D302	8-719-911-19	DIODE 1SS119	
D303	8-719-911-19	DIODE 1SS119	
D304	8-719-974-59	DIODE 1SR139-100	
D351	8-719-109-85	DIODE RD6.1ES-B2	
D401	8-719-911-19	DIODE 1SS119	
D402	8-719-911-19	DIODE 1SS119	
D403	8-719-911-19	DIODE 1SS119	
D404	8-719-109-97	DIODE RD6.8ES-B2	
D501	8-719-911-19	DIODE 1SS119	
D502	8-719-911-19	DIODE 1SS119	
D503	8-719-911-19	DIODE 1SS119	
D504	8-719-109-97	DIODE RD6.8ES-B2	
D551	8-719-109-97	DIODE RD6.8ES-B2	
D601	8-719-911-19	DIODE 1SS119	
D602	8-719-109-97	DIODE RD6.8ES-B2	
D603	8-719-911-19	DIODE 1SS119	
D604	8-719-911-19	DIODE 1SS119	
D670	8-719-911-19	DIODE 1SS119	
D671	8-719-911-19	DIODE 1SS119	
D701	8-719-110-78	DIODE RD33ES-B2	
D901	8-719-109-97	DIODE RD6.8ES-B2	
D902	8-719-109-97	DIODE RD6.8ES-B2	
D903	8-719-109-97	DIODE RD6.8ES-B2	
D951	8-719-911-19	DIODE 1SS119	
D952	8-719-911-19	DIODE 1SS119	
D953	8-719-109-97	DIODE RD6.8ES-B2	

IC

Ref.No	Part No.	Description	Remark
IC101 ⚠	8-759-983-45	IC BA6238A	
IC103	8-759-923-90	IC BA4560	
IC302	8-759-008-71	IC LM324N	
IC401	8-759-634-22	IC M50554-182SP	
IC402	8-759-996-03	IC LVA519S	
IC501	8-752-813-20	IC CXP80116-VSX350	
IC502	8-759-822-65	IC LC6543H-4374	
IC601	8-759-208-08	IC TC4052BPHB	
IC702	8-759-501-XX	IC ST93C46AB1	
IC801	8-759-030-60	IC SDA5642	(SLV-373VP)
IC802	8-759-147-30	IC UPD75004GB-VSX182	(SLV-373VP)

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

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IF BLOCK

Ref.No	Part No.	Description	Remark
IF701⚠	1-464-553-21	IF BLOCK (IFB-389) (SLV-373)	
IF701⚠	1-464-583-21	IF BLOCK (IFB-395) (SLV-373UB)	
IF701⚠	1-466-034-11	IF BLOCK (IFV-389A)	

COIL

Ref.No	Part No.	Description	Remark
L201	1-408-413-00	INDUCTOR 22UH	
L202	1-408-409-00	INDUCTOR 10UH	
L203	1-408-413-00	INDUCTOR 22UH	
L351	1-408-409-00	INDUCTOR 10UH	
L401	1-408-421-00	INDUCTOR 100UH	
L402	1-410-423-11	INDUCTOR 22UH	
L403	1-408-415-00	INDUCTOR 33UH (SLV-373VP)	
L404	1-408-421-00	INDUCTOR 100UH	
L405	1-408-414-00	INDUCTOR 27UH	
L406	1-408-415-00	INDUCTOR 33UH	
L407	1-408-421-00	INDUCTOR 100UH	
L408	1-408-413-00	INDUCTOR 22UH	
L501	1-408-409-00	INDUCTOR 10UH	
L551	1-408-409-00	INDUCTOR 10UH	
L601	1-408-421-00	INDUCTOR 100UH	
L602	1-408-409-00	INDUCTOR 10UH	
L603	1-408-425-00	INDUCTOR 220UH	
L604	1-408-425-00	INDUCTOR 220UH	
L701	1-408-409-00	INDUCTOR 10UH	
L702	1-408-425-00	INDUCTOR 220UH	
L703	1-408-413-00	INDUCTOR 22UH	
L705	1-408-413-00	INDUCTOR 22UH (SLV-373UB)	
L705	1-408-415-00	INDUCTOR 33UH (SLV-373/373VP)	
L706	1-408-409-00	INDUCTOR 10UH	
L752	1-408-409-00	INDUCTOR 10UH	
L753	1-408-409-00	INDUCTOR 10UH	
L754	1-410-509-11	INDUCTOR 10UH (SLV-373VP)	

TRANSISTOR

Ref.No	Part No.	Description	Remark
Q103	8-729-900-61	TRANSISTOR DTA114ES	
Q201	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q202	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q203	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q204	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q301	8-729-900-89	TRANSISTOR DTC144ES	
Q302	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q304	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q401	8-729-920-70	TRANSISTOR 2SC1740S-QR (SLV-373VP)	
Q402	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q403	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q404	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q405	8-729-900-89	TRANSISTOR DTC144ES (SLV-373VP)	
Q406	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q407	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q451	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q501	8-729-900-89	TRANSISTOR DTC144ES	
Q515	8-729-900-89	TRANSISTOR DTC144ES	
Q601	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q602	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q603	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q604	8-729-900-65	TRANSISTOR DTA144ES	
Q608	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q609	8-729-900-89	TRANSISTOR DTC144ES	
Q610	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q670	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q710	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q711	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q712	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q751	8-729-920-70	TRANSISTOR C1740S-QR	
Q951	8-729-900-89	TRANSISTOR DTC144ES	
Q952	8-729-900-63	TRANSISTOR DTA124ES	

RESISTOR

Ref.No	Part No.	Description	Remark
R117	1-249-413-11	CARBON 470 5% 1/4W	
R118	1-249-425-11	CARBON 4.7K 5% 1/4W	
R201	1-249-431-11	CARBON 15K 5% 1/4W	
R202	1-249-430-11	CARBON 12K 5% 1/4W	
R203	1-249-417-11	CARBON 1K 5% 1/4W	
R204	1-249-417-11	CARBON 1K 5% 1/4W	
R205	1-249-418-11	CARBON 1.2K 5% 1/4W	
R206	1-249-417-11	CARBON 1K 5% 1/4W	
R207	1-247-897-11	CARBON 560K 5% 1/4W	
R208	1-249-421-11	CARBON 2.2K 5% 1/4W	
R209	1-249-428-11	CARBON 8.2K 5% 1/4W	
R210	1-249-421-11	CARBON 2.2K 5% 1/4W	
R211	1-249-412-11	CARBON 390 5% 1/4W	
R212	1-249-405-11	CARBON 100 5% 1/4W	
R213	1-249-437-11	CARBON 47K 5% 1/4W	
R214	1-249-427-11	CARBON 6.8K 5% 1/4W	
R215	1-249-435-11	CARBON 33K 5% 1/4W	
R216	1-249-429-11	CARBON 10K 5% 1/4W	
R301	1-247-885-00	CARBON 180K 5% 1/4W	
R302	1-249-417-11	CARBON 1K 5% 1/4W	
R303	1-249-423-11	CARBON 3.3K 5% 1/4W	
R304	1-249-421-11	CARBON 2.2K 5% 1/4W	
R305	1-249-423-11	CARBON 3.3K 5% 1/4W	
R306	1-249-423-11	CARBON 3.3K 5% 1/4W	
R309	1-247-889-00	CARBON 270K 5% 1/4W	
R310⚠	1-247-744-11	CARBON 270 5% 1/2W	F
R312	1-249-441-11	CARBON 100K 5% 1/4W	
R313	1-249-426-11	CARBON 5.6K 5% 1/4W	
R351	1-249-436-11	CARBON 39K 5% 1/4W	
R352	1-249-417-11	CARBON 1K 5% 1/4W	
R353	1-249-435-11	CARBON 33K 5% 1/4W	
R355	1-249-429-11	CARBON 10K 5% 1/4W	
R356	1-249-429-11	CARBON 10K 5% 1/4W	
R359	1-249-435-11	CARBON 33K 5% 1/4W	
R401	1-249-429-11	CARBON 10K 5% 1/4W	
R403	1-249-421-11	CARBON 2.2K 5% 1/4W	

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref.No	Part No.	Description				Remark
R404	1-249-413-11	CARBON	470	5%	1/4W	
R405	1-249-413-11	CARBON	470	5%	1/4W	
R406	1-249-425-11	CARBON	4.7K	5%	1/4W	
R407	1-249-431-11	CARBON	15K	5%	1/4W	
R408	1-249-435-11	CARBON	33K	5%	1/4W	
R409	1-249-403-11	CARBON	68	5%	1/4W	
R410	1-249-429-11	CARBON	10K	5%	1/4W	(SLV-373VP)
R411	1-249-423-11	CARBON	3.3K	5%	1/4W	
R412	1-249-405-11	CARBON	100	5%	1/4W	
R413	1-249-414-11	CARBON	560	5%	1/4W	
R414	1-249-433-11	CARBON	22K	5%	1/4W	
R415	1-249-409-11	CARBON	220	5%	1/4W	
R416	1-249-435-11	CARBON	33K	5%	1/4W	
R417	1-249-431-11	CARBON	15K	5%	1/4W	
R419	1-249-414-11	CARBON	560	5%	1/4W	
R419	1-249-419-11	CARBON	1.5K	5%	1/4W	
R420	1-249-420-11	CARBON	1.8K	5%	1/4W	
R421	1-249-428-11	CARBON	8.2K	5%	1/4W	
R422	1-249-417-11	CARBON	1K	5%	1/4W	
R425	1-249-422-11	CARBON	2.7K	5%	1/4W	
R426	1-249-421-11	CARBON	2.2K	5%	1/4W	
R427	1-249-415-11	CARBON	680	5%	1/4W	
R428	1-249-414-11	CARBON	560	5%	1/4W	
R429	1-249-422-11	CARBON	2.7K	5%	1/4W	
R430	1-249-424-11	CARBON	3.9K	5%	1/4W	
R431	1-249-421-11	CARBON	2.2K	5%	1/4W	
R432	1-249-423-11	CARBON	3.3K	5%	1/4W	
R433	1-249-429-11	CARBON	10K	5%	1/4W	(SLV-373VP)
R434	1-249-419-11	CARBON	1.5K	5%	1/4W	
R435	1-247-903-00	CARBON	1M	5%	1/4W	
R436	1-249-422-11	CARBON	2.7K	5%	1/4W	
R437	1-249-429-11	CARBON	10K	5%	1/4W	
R438	1-249-424-11	CARBON	3.9K	5%	1/4W	
R451	1-249-429-11	CARBON	10K	5%	1/4W	
R452	1-249-429-11	CARBON	10K	5%	1/4W	
R453	1-249-422-11	CARBON	2.7K	5%	1/4W	
R454	1-249-434-11	CARBON	27K	5%	1/4W	
R456	1-249-429-11	CARBON	10K	5%	1/4W	
R457	1-247-903-00	CARBON	1M	5%	1/4W	
R458	1-249-414-11	CARBON	560	5%	1/4W	
R459	1-249-418-11	CARBON	1.2K	5%	1/4W	
R460	1-249-417-11	CARBON	1K	5%	1/4W	
R461	1-249-441-11	CARBON	100K	5%	1/4W	
R501	1-249-429-11	CARBON	10K	5%	1/4W	
R502	1-249-429-11	CARBON	10K	5%	1/4W	
R503	1-249-429-11	CARBON	10K	5%	1/4W	
R504	1-249-417-11	CARBON	1K	5%	1/4W	
R505	1-249-433-11	CARBON	22K	5%	1/4W	
R506	1-249-433-11	CARBON	22K	5%	1/4W	
R507	1-249-433-11	CARBON	22K	5%	1/4W	
R508	1-249-433-11	CARBON	22K	5%	1/4W	
R509	1-249-433-11	CARBON	22K	5%	1/4W	
R510	1-249-433-11	CARBON	22K	5%	1/4W	
R511	1-249-414-11	CARBON	560	5%	1/4W	
R512	1-249-417-11	CARBON	1K	5%	1/4W	
R513	1-249-429-11	CARBON	10K	5%	1/4W	
R514	1-249-429-11	CARBON	10K	5%	1/4W	
R515	1-249-417-11	CARBON	1K	5%	1/4W	
R516	1-249-441-11	CARBON	100K	5%	1/4W	
R517	1-249-433-11	CARBON	22K	5%	1/4W	
R518	1-249-433-11	CARBON	22K	5%	1/4W	
R524	1-249-429-11	CARBON	10K	5%	1/4W	
R525	1-249-429-11	CARBON	10K	5%	1/4W	
R528	1-249-429-11	CARBON	10K	5%	1/4W	
R553	1-249-433-11	CARBON	22K	5%	1/4W	
R554	1-249-433-11	CARBON	22K	5%	1/4W	
R555	1-249-413-11	CARBON	470	5%	1/4W	
R556	1-249-417-11	CARBON	1K	5%	1/4W	
R560	1-249-437-11	CARBON	47K	5%	1/4W	
R601	1-249-437-11	CARBON	47K	5%	1/4W	
R602	1-249-437-11	CARBON	47K	5%	1/4W	
R604	1-249-437-11	CARBON	47K	5%	1/4W	
R606	1-249-437-11	CARBON	47K	5%	1/4W	
R607	1-249-429-11	CARBON	10K	5%	1/4W	
R608	1-249-429-11	CARBON	10K	5%	1/4W	
R609	1-249-429-11	CARBON	10K	5%	1/4W	
R610	1-249-429-11	CARBON	10K	5%	1/4W	
R611	1-249-429-11	CARBON	10K	5%	1/4W	
R612	1-249-417-11	CARBON	1K	5%	1/4W	
R613	1-249-417-11	CARBON	1K	5%	1/4W	
R614	1-249-437-11	CARBON	47K	5%	1/4W	
R615	1-249-439-11	CARBON	68K	5%	1/4W	
R616	1-249-421-11	CARBON	2.2K	5%	1/4W	
R617	1-249-429-11	CARBON	10K	5%	1/4W	
R618	1-249-427-11	CARBON	6.8K	5%	1/4W	
R619	1-249-419-11	CARBON	1.5K	5%	1/4W	
R620	1-249-421-11	CARBON	2.2K	5%	1/4W	
R634	1-249-417-11	CARBON	1K	5%	1/4W	
R635	1-249-417-11	CARBON	1K	5%	1/4W	
R636	1-249-426-11	CARBON	5.6K	5%	1/4W	
R637	1-249-426-11	CARBON	5.6K	5%	1/4W	
R638	1-249-408-11	CARBON	180	5%	1/4W	
R639	1-249-404-00	CARBON	82	5%	1/4W	
R640	1-249-406-11	CARBON	120	5%	1/4W	
R641	1-249-406-11	CARBON	120	5%	1/4W	
R642	1-249-403-11	CARBON	68	5%	1/4W	
R644	1-249-426-11	CARBON	5.6K	5%	1/4W	
R645	1-249-417-11	CARBON	1K	5%	1/4W	
R670	1-249-413-11	CARBON	470	5%	1/4W	
R671	1-249-429-11	CARBON	10K	5%	1/4W	
R672	1-249-429-11	CARBON	10K	5%	1/4W	
R700	1-249-435-11	CARBON	33K	5%	1/4W	
R708	1-249-417-11	CARBON	1K	5%	1/4W	
R709	1-249-417-11	CARBON	1K	5%	1/4W	
R712	1-249-409-11	CARBON	220	5%	1/4W	
R713	1-249-417-11	CARBON	1K	5%	1/4W	

When indicating parts by reference number, please include the board name.

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Ref.No	Part No.	Description	Remark
R714	1-249-421-11	CARBON 2.2K 5% 1/4W	
R715	1-249-405-11	CARBON 100 5% 1/4W	
R716	1-249-417-11	CARBON 1K 5% 1/4W	
R717	1-249-417-11	CARBON 1K 5% 1/4W	
R720	1-249-417-11	CARBON 1K 5% 1/4W	
R722	1-249-417-11	CARBON 1K 5% 1/4W	
R723	1-249-417-11	CARBON 1K 5% 1/4W	
R725	1-247-826-00	CARBON 620 5% 1/4W	(SLV-373UB)
R725	1-249-417-11	CARBON 1K 5% 1/4W	(SLV-373/373VP)
R726	1-247-883-00	CARBON 150K 5% 1/4W	(SLV-373/373UB)
R727	1-247-883-00	CARBON 150K 5% 1/4W	(SLV-373/373UB)
R728	1-249-405-11	CARBON 100 5% 1/4W	
R730	1-249-424-11	CARBON 3.9K 5% 1/4W	(SLV-373/373UB)
R731	1-249-429-11	CARBON 10K 5% 1/4W	(SLV-373/373UB)
R732	1-249-417-11	CARBON 1K 5% 1/4W	
R735	1-249-421-11	CARBON 2.2K 5% 1/4W	(SLV-373VP)
R737	1-249-424-11	CARBON 3.9K 5% 1/4W	(SLV-373VP)
R739	1-249-417-11	CARBON 1K 5% 1/4W	
R740	1-249-429-11	CARBON 10K 5% 1/4W	
R759	1-249-438-11	CARBON 56K 5% 1/4W	(SLV-373/373UB)
R760	1-249-438-11	CARBON 56K 5% 1/4W	(SLV-373/373UB)
R801	1-249-429-11	CARBON 10K 5% 1/4W	(SLV-373VP)
R802	1-249-429-11	CARBON 10K 5% 1/4W	(SLV-373VP)
R803	1-249-441-11	CARBON 100K 5% 1/4W	(SLV-373VP)
R804	1-247-901-11	CARBON 820K 5% 1/4W	(SLV-373VP)
R805	1-249-405-11	CARBON 100 5% 1/4W	(SLV-373VP)
R806	1-247-901-11	CARBON 820K 5% 1/4W	(SLV-373VP)
R807	1-249-426-11	CARBON 5.6K 5% 1/4W	(SLV-373VP)
R808	1-247-903-00	CARBON 1M 5% 1/4W	(SLV-373VP)
R810	1-249-421-11	CARBON 2.2K 5% 1/4W	(SLV-373VP)
R811	1-249-429-11	CARBON 10K 5% 1/4W	(SLV-373VP)
R812	1-249-429-11	CARBON 10K 5% 1/4W	(SLV-373VP)
R951	1-249-421-11	CARBON 2.2K 5% 1/4W	
		MODULATOR	
RF401⚠	1-466-328-11	MODULATOR, RF (RFU-2017)	(SLV-373/373VP)
RF401⚠	1-466-347-11	MODULATOR, RF (RFU-2024)	(SLV-373UB)
		VARIABLE RESISTOR	
RV451	1-238-015-11	RES, ADJ, CARBON 4.7K	
RV501	1-238-019-11	RES, ADJ, CARBON 47K	
		TUNER	
TU701	1-465-260-11	TUNER, ET (BTP-2C401)	(SLV-373/373VP)
TU701	1-465-262-11	TUNER, ET (BTP-2U601)	(SLV-373UB)
		CRYSTAL	
X401	1-577-289-11	VIBRATOR, CRYSTAL 17.7MHZ	
X501	1-577-383-11	VIBRATOR, CRYSTAL 16MHz	
X551	1-567-192-11	OSCILLATOR, CERAMIC 4MHz	

Ref.No	Part No.	Description	Remark
	*A-6727-187-A	YC-90 BOARD, COMPLETE **********************	
	*3-738-015-01	COVER, (DIA. 6) CARBON VR	
	*3-746-013-01	HOLDER (Y), PC BOARD	
		CAPACITOR	
C701	1-164-095-11	CERAMIC 0.01MF 10% 16V	
C702	1-164-096-11	CERAMIC 0.01MF 50V	
C703	1-124-927-11	ELECT 4.7MF 20% 50V	
C704	1-126-233-11	ELECT 22MF 20% 25V	
C705	1-162-851-11	CERAMIC 0.1MF 10% 16V	
C706	1-124-927-11	ELECT 4.7MF 20% 50V	
C707	1-124-927-11	ELECT 4.7MF 20% 50V	
C708	1-164-046-11	CERAMIC 10PF 0.5PF 50V	
C709	1-124-446-11	ELECT 47MF 20% 10V	
C710	1-164-098-11	CERAMIC 0.047MF 12V	
C711	1-102-820-00	CERAMIC 330PF 5% 50V	
C712	1-102-822-00	CERAMIC 390PF 5% 50V	
C713	1-162-293-31	CERAMIC 820PF 10% 50V	
C714	1-164-096-11	CERAMIC 0.01MF 50V	
C715	1-164-096-11	CERAMIC 0.01MF 50V	
C716	1-124-446-11	ELECT 47MF 20% 10V	
C718	1-124-927-11	ELECT 4.7MF 20% 50V	
C723	1-164-096-11	CERAMIC 0.01MF 50V	
C724	1-164-097-11	CERAMIC 0.022MF 50V	
C725	1-164-096-11	CERAMIC 0.01MF 50V	
C726	1-164-096-11	CERAMIC 0.01MF 50V	
C727	1-164-096-11	CERAMIC 0.01MF 50V	
C728	1-164-060-11	CERAMIC 39PF 5% 50V	
C730	1-164-096-11	CERAMIC 0.01MF 50V	
C731	1-124-446-11	ELECT 47MF 20% 10V	
C732	1-164-068-11	CERAMIC 82PF 5% 50V	
C733	1-164-058-11	CERAMIC 33PF 5% 50V	
C734	1-102-824-00	CERAMIC 470PF 5% 50V	
C735	1-162-851-11	CERAMIC 0.1MF 10% 16V	
C736	1-164-066-11	CERAMIC 68PF 5% 50V	
C737	1-164-096-11	CERAMIC 0.01MF 50V	
C738	1-124-925-11	ELECT 2.2MF 20% 50V	
C739	1-162-280-31	CERAMIC 82PF 10% 50V	
C740	1-164-056-11	CERAMIC 27PF 5% 50V	
C741	1-124-446-11	ELECT 47MF 20% 10V	
C743	1-162-851-11	CERAMIC 0.1MF 10% 16V	
C744	1-124-446-11	ELECT 47MF 20% 10V	
C746	1-164-096-11	CERAMIC 0.01MF 50V	
C747	1-162-851-11	CERAMIC 0.1MF 10% 16V	
C749	1-162-851-11	CERAMIC 0.1MF 10% 16V	
C750	1-164-096-11	CERAMIC 0.01MF 50V	
C751	1-162-851-11	CERAMIC 0.1MF 10% 16V	
C753	1-124-446-11	ELECT 47MF 20% 10V	
C754	1-164-058-11	CERAMIC 33PF 5% 50V	
C755	1-164-072-11	CERAMIC 120PF 5% 50V	
C756	1-102-978-00	CERAMIC 220PF 5% 50V	

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref.No	Part No.	Description			Remark
C760	1-164-096-11	CERAMIC	0.01MF		50V
C763	1-124-927-11	ELECT	4.7MF	20%	50V
C766	1-124-927-11	ELECT	4.7MF	20%	50V
C768	1-164-096-11	CERAMIC	0.01MF		50V
C770	1-102-978-00	CERAMIC	220PF	5%	50V
C780	1-162-851-11	CERAMIC	0.1MF	10%	16V
C782	1-164-068-11	CERAMIC	82PF	5%	50V
C783	1-102-820-00	CERAMIC	330PF	5%	50V
C785	1-164-096-11	CERAMIC	0.01MF		50V
C790	1-164-096-11	CERAMIC	0.01MF		50V
C801	1-162-851-11	CERAMIC	0.1MF	10%	16V
C802	1-124-446-11	ELECT	47MF	20%	10V
C803	1-164-096-11	CERAMIC	0.01MF		50V
C804	1-162-851-11	CERAMIC	0.1MF	10%	16V
C805	1-164-097-11	CERAMIC	0.022MF		50V
C806	1-164-096-11	CERAMIC	0.01MF		50V
C807	1-164-096-11	CERAMIC	0.01MF		50V
C808	1-164-096-11	CERAMIC	0.01MF		50V
C809	1-102-978-00	CERAMIC	220PF	5%	50V
C810	1-102-978-00	CERAMIC	220PF	5%	50V
C811	1-164-031-11	CERAMIC	33PF	5%	50V
C812	1-164-096-11	CERAMIC	0.01MF		50V
C813	1-124-443-00	ELECT	100MF	20%	6.3V
C814	1-124-443-00	ELECT	100MF	20%	6.3V
C815	1-136-169-00	MYLAR	0.22MF	5%	50V
C816	1-124-927-11	ELECT	4.7MF	20%	50V
C817	1-164-096-11	CERAMIC	0.01MF		50V
C818	1-161-061-11	CERAMIC	0.068MF	10%	25V
C819	1-124-443-00	ELECT	100MF	20%	6.3V
C820	1-164-070-11	CERAMIC	100PF	5%	50V
C823	1-124-927-11	ELECT	4.7MF	20%	50V
C825	1-162-851-11	CERAMIC	0.1MF	10%	16V
C826	1-164-098-11	CERAMIC	0.047MF		12V
C827	1-162-851-11	CERAMIC	0.1MF	10%	16V
C828	1-164-096-11	CERAMIC	0.01MF		50V
C829	1-164-096-11	CERAMIC	0.01MF		50V
C830	1-162-851-11	CERAMIC	0.1MF	10%	16V
C831	1-101-361-00	CERAMIC	150PF	5%	50V
C832	1-124-791-11	ELECT	1MF	20%	50V
C833	1-164-096-11	CERAMIC	0.01MF		50V
C834	1-123-382-00	ELECT	3.3MF	20%	50V
C835	1-164-096-11	CERAMIC	0.01MF		50V
C836	1-162-851-11	CERAMIC	0.1MF	10%	16V
C837	1-164-052-11	CERAMIC	18PF	5%	50V
C840	1-164-096-11	CERAMIC	0.01MF		50V
C841	1-164-096-11	CERAMIC	0.01MF		50V
C842	1-164-096-11	CERAMIC	0.01MF		50V
C844	1-164-096-11	CERAMIC	0.01MF		50V
C847	1-124-446-11	ELECT	47MF	20%	10V
C848	1-164-096-11	CERAMIC	0.01MF		50V
C849	1-130-495-00	MYLAR	0.1MF	5%	50V
C850	1-164-091-11	CERAMIC	0.0022MF	10%	50V
C851	1-102-978-00	CERAMIC	220PF	5%	50V
C852	1-162-851-11	CERAMIC	0.1MF	10%	16V
C853	1-124-446-11	ELECT	47MF	20%	10V
C854	1-124-927-11	ELECT	4.7MF	20%	50V
C855	1-124-446-11	ELECT	47MF	20%	10V
C857	1-164-096-11	CERAMIC	0.01MF		50V
C858	1-164-072-11	CERAMIC	120PF	5%	50V
C859	1-123-875-11	ELECT	10MF	20%	50V
C860	1-123-875-11	ELECT	10MF	20%	50V
C861	1-164-092-11	CERAMIC	0.0033MF	10%	25V
C862	1-101-361-00	CERAMIC	150PF	5%	50V
C863	1-124-791-11	ELECT	1MF	20%	50V
C864	1-124-446-11	ELECT	47MF	20%	10V
C865	1-124-446-11	ELECT	47MF	20%	10V
C866	1-124-791-11	ELECT	1MF	20%	50V
C867	1-123-875-11	ELECT	10MF	20%	50V
C868	1-164-077-11	CERAMIC	220PF	10%	50V
C869	1-164-096-11	CERAMIC	0.01MF		50V
C870	1-164-056-11	CERAMIC	27PF	5%	50V
C871	1-164-056-11	CERAMIC	27PF	5%	50V
C872	1-164-096-11	CERAMIC	0.01MF		50V
C873	1-164-054-11	CERAMIC	22PF	5%	50V
C874	1-164-096-11	CERAMIC	0.01MF		50V
C875	1-162-851-11	CERAMIC	0.1MF	10%	16V
C876	1-130-475-00	MYLAR	0.0022MF	5%	50V
C877	1-164-096-11	CERAMIC	0.01MF		50V
C878	1-130-475-00	MYLAR	0.0022MF	5%	50V
C879	1-164-098-11	CERAMIC	0.047MF		12V
C880	1-124-791-11	ELECT	1MF	20%	50V
C881	1-123-875-11	ELECT	10MF	20%	50V
C882	1-123-382-00	ELECT	3.3MF	20%	50V
C883	1-164-096-11	CERAMIC	0.01MF		50V
C884	1-164-096-11	CERAMIC	0.01MF		50V
C885	1-123-875-11	ELECT	10MF	20%	50V
C886	1-162-851-11	CERAMIC	0.1MF	10%	16V
C887	1-162-851-11	CERAMIC	0.1MF	10%	16V
C888	1-123-875-11	ELECT	10MF	20%	50V
C889	1-164-062-11	CERAMIC	47PF	5%	50V
C890	1-164-050-11	CERAMIC	15PF	5%	50V
C891	1-164-066-11	CERAMIC	68PF	5%	50V
C892	1-164-066-11	CERAMIC	68PF	5%	50V
C893	1-124-446-11	ELECT	47MF	20%	10V
C894	1-124-446-11	ELECT	47MF	20%	10V
C895	1-164-096-11	CERAMIC	0.01MF		50V
C896	1-124-446-11	ELECT	47MF	20%	10V
C897	1-124-927-11	ELECT	4.7MF	20%	50V
C898	1-164-096-11	CERAMIC	0.01MF		50V
C899	1-164-085-11	CERAMIC	0.001MF	10%	50V

CONNECTOR

CN701	1-506-471-11	PIN, CONNECTOR 6P
CN702	1-506-473-11	PIN, CONNECTOR 8P
CN703	1-506-476-11	PIN, CONNECTOR 11P
CN704	1-506-469-11	PIN, CONNECTOR 4P

When indicating parts by reference number, please include the board name.

DIODE

Ref.No	Part No.	Description	Remark
D701	8-719-911-19	DIODE 1SS119	
D705	8-719-911-19	DIODE 1SS119	
D801	8-719-911-19	DIODE 1SS119	

DELAY LINE

Ref.No	Part No.	Description	Remark
DL801	1-415-602-11	DELAY LINE, GLASS	

FILTER

Ref.No	Part No.	Description	Remark
FL701	1-236-312-11	FILTER, BAND PASS	
FL801	1-239-915-11	FILTER, BAND PASS	
FL802	1-236-311-11	FILTER, BAND PASS (5.06MHz)	
FL803	1-527-849-00	FILTER, CERAMIC	
FL850	1-527-943-00	FILTER, CERAMIC (4.5MHz)	

IC

Ref.No	Part No.	Description	Remark
IC701	8-759-420-07	IC AN3231K	
IC702	8-752-321-89	IC CXL5003P	
IC801	8-759-320-78	IC HA118016NT	
IC802	8-759-822-05	IC LA7213	
IC850	8-759-904-95	IC BA7007	
IC860	8-759-420-53	IC AN3592K	
IC861	8-759-991-54	IC MSM6989RS	
IC862	8-752-006-12	IC CX20061	
IC863	8-759-822-05	IC LA7213	

COIL

Ref.No	Part No.	Description		Remark
L701	1-408-421-00	INDUCTOR	100UH	
L704	1-408-420-00	INDUCTOR	82UH	
L705	1-408-422-00	INDUCTOR	120UH	
L706	1-408-421-00	INDUCTOR	100UH	
L707	1-408-421-00	INDUCTOR	100UH	
L708	1-408-421-00	INDUCTOR	100UH	
L709	1-408-421-00	INDUCTOR	100UH	
L712	1-408-410-00	INDUCTOR	12UH	
L713	1-408-413-00	INDUCTOR	22UH	
L726	1-408-424-00	INDUCTOR	180UH	
L801	1-408-421-00	INDUCTOR	100UH	
L802	1-408-427-00	INDUCTOR	330UH	
L803	1-408-429-00	INDUCTOR	470UH	
L805	1-408-409-00	INDUCTOR	10UH	
L806	1-408-408-00	INDUCTOR	8.2UH	
L807	1-408-408-00	INDUCTOR	8.2UH	
L809	1-407-499-00	INDUCTOR	3.9MMH	
L850	1-407-499-00	INDUCTOR	3.9MMH	
L861	1-408-415-00	INDUCTOR	33UH	
L862	1-408-409-00	INDUCTOR	10UH	
L863	1-408-409-00	INDUCTOR	10UH	
L880	1-408-421-00	INDUCTOR	100UH	
L881	1-408-421-00	INDUCTOR	100UH	
L882	1-408-411-00	INDUCTOR	15UH	
L883	1-408-414-00	INDUCTOR	27UH	
L891	1-408-409-00	INDUCTOR	10UH	
L892	1-408-409-00	INDUCTOR	10UH	
L893	1-408-409-00	INDUCTOR	10UH	

TRANSISTOR

Ref.No	Part No.	Description	Remark
Q702	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q704	8-729-900-89	TRANSISTOR DTC144ES	
Q705	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q706	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q710	8-729-900-89	TRANSISTOR DTC144ES	
Q711	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q721	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q722	8-729-900-89	TRANSISTOR DTC144ES	
Q723	8-729-900-89	TRANSISTOR DTC144ES	
Q801	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q803	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q804	8-729-900-80	TRANSISTOR DTC114ES	
Q805	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q806	8-729-900-89	TRANSISTOR DTC144ES	
Q807	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q808	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q809	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q810	8-729-900-65	TRANSISTOR DTA144ES	
Q813	8-729-903-02	TRANSISTOR DTA143XS	
Q850	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q851	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q852	8-729-900-89	TRANSISTOR DTC144ES	
Q860	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q862	8-729-900-89	TRANSISTOR DTC144ES	
Q880	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q881	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q882	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q883	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q884	8-729-900-89	TRANSISTOR DTC144ES	

RESISTOR

Ref.No	Part No.	Description				Remark
R701	1-247-887-00	CARBON	220K	5%	1/4W	
R702	1-249-421-11	CARBON	2.2K	5%	1/4W	
R703	1-249-428-11	CARBON	8.2K	5%	1/4W	
R704	1-249-427-11	CARBON	6.8K	5%	1/4W	
R705	1-249-426-11	CARBON	5.6K	5%	1/4W	
R706	1-249-421-11	CARBON	2.2K	5%	1/4W	
R707	1-247-834-11	CARBON	1.3K	5%	1/4W	
R708	1-247-818-11	CARBON	300	5%	1/4W	
R709	1-249-423-11	CARBON	3.3K	5%	1/4W	
R710	1-249-438-11	CARBON	56K	5%	1/4W	
R713	1-249-421-11	CARBON	2.2K	5%	1/4W	
R714	1-249-425-11	CARBON	4.7K	5%	1/4W	
R717	1-249-420-11	CARBON	1.8K	5%	1/4W	
R718	1-249-422-11	CARBON	2.7K	5%	1/4W	
R719	1-249-426-11	CARBON	5.6K	5%	1/4W	
R720	1-249-424-11	CARBON	3.9K	5%	1/4W	
R722	1-249-419-11	CARBON	1.5K	5%	1/4W	

When indicating parts by reference number, please include the board name.

Ref.No	Part No.	Description				Remark
R723	1-249-426-11	CARBON	5.6K	5%	1/4W	
R724	1-249-419-11	CARBON	1.5K	5%	1/4W	
R725	1-249-412-11	CARBON	390	5%	1/4W	
R726	1-249-416-11	CARBON	820	5%	1/4W	
R727	1-249-413-11	CARBON	470	5%	1/4W	
R728	1-247-897-11	CARBON	560K	5%	1/4W	
R729	1-249-437-11	CARBON	47K	5%	1/4W	
R730	1-249-437-11	CARBON	47K	5%	1/4W	
R731	1-249-413-11	CARBON	470	5%	1/4W	
R733	1-249-413-11	CARBON	470	5%	1/4W	
R734	1-249-434-11	CARBON	27K	5%	1/4W	
R735	1-249-429-11	CARBON	10K	5%	1/4W	
R736	1-249-409-11	CARBON	220	5%	1/4W	
R737	1-249-413-11	CARBON	470	5%	1/4W	
R738	1-249-405-11	CARBON	100	5%	1/4W	
R741	1-249-417-11	CARBON	1K	5%	1/4W	
R744	1-247-903-00	CARBON	1M	5%	1/4W	
R754	1-249-412-11	CARBON	390	5%	1/4W	
R755	1-259-880-11	CARBON	2.2M	5%	1/4W	
R761	1-249-437-11	CARBON	47K	5%	1/4W	
R763	1-249-423-11	CARBON	3.3K	5%	1/4W	
R774	1-249-433-11	CARBON	22K	5%	1/4W	
R775	1-249-435-11	CARBON	33K	5%	1/4W	
R776	1-249-410-11	CARBON	270	5%	1/4W	
R777	1-249-417-11	CARBON	1K	5%	1/4W	
R778	1-249-415-11	CARBON	680	5%	1/4W	
R779	1-249-413-11	CARBON	470	5%	1/4W	
R780	1-249-429-11	CARBON	10K	5%	1/4W	
R781	1-249-422-11	CARBON	2.7K	5%	1/4W	
R801	1-249-417-11	CARBON	1K	5%	1/4W	
R802	1-249-417-11	CARBON	1K	5%	1/4W	
R803	1-249-413-11	CARBON	470	5%	1/4W	
R805	1-249-429-11	CARBON	10K	5%	1/4W	
R806	1-249-427-11	CARBON	6.8K	5%	1/4W	
R807	1-249-417-11	CARBON	1K	5%	1/4W	
R808	1-249-418-11	CARBON	1.2K	5%	1/4W	
R809	1-249-417-11	CARBON	1K	5%	1/4W	
R810	1-249-415-11	CARBON	680	5%	1/4W	
R811	1-249-417-11	CARBON	1K	5%	1/4W	
R812	1-249-423-11	CARBON	3.3K	5%	1/4W	
R813	1-249-416-11	CARBON	820	5%	1/4W	
R814	1-249-415-11	CARBON	680	5%	1/4W	
R815	1-249-429-11	CARBON	10K	5%	1/4W	
R816	1-249-441-11	CARBON	100K	5%	1/4W	
R817	1-249-405-11	CARBON	100	5%	1/4W	
R818	1-249-412-11	CARBON	390	5%	1/4W	
R819	1-249-421-11	CARBON	2.2K	5%	1/4W	
R820	1-249-427-11	CARBON	6.8K	5%	1/4W	
R822	1-249-420-11	CARBON	1.8K	5%	1/4W	
R823	1-249-423-11	CARBON	3.3K	5%	1/4W	
R824	1-249-417-11	CARBON	1K	5%	1/4W	
R825	1-249-422-11	CARBON	2.7K	5%	1/4W	
R826	1-249-427-11	CARBON	6.8K	5%	1/4W	
R827	1-249-424-11	CARBON	3.9K	5%	1/4W	
R828	1-249-410-11	CARBON	270	5%	1/4W	
R831	1-249-429-11	CARBON	10K	5%	1/4W	
R832	1-249-409-11	CARBON	220	5%	1/4W	
R833	1-249-411-11	CARBON	330	5%	1/4W	
R834	1-249-422-11	CARBON	2.7K	5%	1/4W	
R835	1-249-411-11	CARBON	330	5%	1/4W	
R836	1-249-411-11	CARBON	330	5%	1/4W	
R837	1-249-425-11	CARBON	4.7K	5%	1/4W	
R838	1-249-437-11	CARBON	47K	5%	1/4W	
R839	1-249-417-11	CARBON	1K	5%	1/4W	
R846	1-249-425-11	CARBON	4.7K	5%	1/4W	
R847	1-249-421-11	CARBON	2.2K	5%	1/4W	
R848	1-249-421-11	CARBON	2.2K	5%	1/4W	
R849	1-249-429-11	CARBON	10K	5%	1/4W	
R850	1-249-421-11	CARBON	2.2K	5%	1/4W	
R851	1-249-434-11	CARBON	27K	5%	1/4W	
R854	1-247-891-00	CARBON	330K	5%	1/4W	
R855	1-249-411-11	CARBON	330	5%	1/4W	
R856	1-247-887-00	CARBON	220K	5%	1/4W	
R857	1-249-417-11	CARBON	1K	5%	1/4W	
R858	1-249-435-11	CARBON	33K	5%	1/4W	
R862	1-249-423-11	CARBON	3.3K	5%	1/4W	
R863	1-249-430-11	CARBON	12K	5%	1/4W	
R864	1-249-425-11	CARBON	4.7K	5%	1/4W	
R865	1-249-441-11	CARBON	100K	5%	1/4W	
R867	1-249-417-11	CARBON	1K	5%	1/4W	
R868	1-249-421-11	CARBON	2.2K	5%	1/4W	
R869	1-249-433-11	CARBON	22K	5%	1/4W	
R870	1-249-435-11	CARBON	33K	5%	1/4W	
R872	1-249-409-11	CARBON	220	5%	1/4W	
R873	1-247-885-00	CARBON	180K	5%	1/4W	
R874	1-249-429-11	CARBON	10K	5%	1/4W	
R880	1-249-417-11	CARBON	1K	5%	1/4W	
R881	1-249-411-11	CARBON	330	5%	1/4W	
R882	1-249-417-11	CARBON	1K	5%	1/4W	
R883	1-249-419-11	CARBON	1.5K	5%	1/4W	
R884	1-249-436-11	CARBON	39K	5%	1/4W	
R885	1-249-429-11	CARBON	10K	5%	1/4W	
R886	1-249-413-11	CARBON	470	5%	1/4W	
R887	1-249-409-11	CARBON	220	5%	1/4W	
R888	1-249-415-11	CARBON	680	5%	1/4W	
R889	1-249-417-11	CARBON	1K	5%	1/4W	
R890	1-249-417-11	CARBON	1K	5%	1/4W	
R891	1-247-887-00	CARBON	220K	5%	1/4W	
R892	1-249-429-11	CARBON	10K	5%	1/4W	
R893	1-249-417-11	CARBON	1K	5%	1/4W	
R894	1-249-405-11	CARBON	100	5%	1/4W	
R895	1-249-413-11	CARBON	470	5%	1/4W	
R896	1-249-429-11	CARBON	10K	5%	1/4W	
R897	1-249-429-11	CARBON	10K	5%	1/4W	
R898	1-249-429-11	CARBON	10K	5%	1/4W	
R899	1-249-429-11	CARBON	10K	5%	1/4W	

When indicating parts by reference number, please include the board name.

VARIABLE RESISTOR

Ref.No	Part No.	Description	Remark
RV701	1-238-015-11	RES, ADJ, CARBON 4.7K (AGC)	
RV702	1-238-015-11	RES, ADJ, CARBON 4.7K (DEV)	
RV703	1-238-017-11	RES, ADJ, CARBON 22K (CARR)	
RV704	1-238-017-11	RES, ADJ, CARBON 22K (DARK CLIP)	
RV705	1-238-017-11	RES, ADJ, CARBON 22K (WHITE CLIP)	
RV707	1-238-012-11	RES, ADJ, CARBON 1K (CCD LEVEL)	
RV708	1-238-016-11	RES, ADJ, CARBON 10K (DEMOD GAIN)	
RV710	1-238-012-11	RES, ADJ, CARBON 1K (REC Y)	
RV801	1-238-012-11	RES, ADJ, CARBON 1K (REC C)	
RV850	1-238-011-11	RES, ADJ, CARBON 470 (SECAM DET)	
RV860	1-238-020-11	RES, ADJ, CARBON 100K (PLAY JOG AFC)	
RV861	1-238-012-11	RES, ADJ, CARBON 1K (0.5H CCD LEVEL)	

COIL

Ref.No	Part No.	Description
T802	1-409-467-11	COIL (TRAP 7.8K)
T850	1-409-467-11	COIL (TRAP 7.8K)

CRYSTAL

Ref.No	Part No.	Description
X801	1-577-651-11	VIBRATOR, CRYSTAL (4.433619MHz)

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*A-6727-189-A RP-100 BOARD, COMPLETE

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*3-746-014-01 CASE (MAIN), GRP
*3-746-015-01 CASE (UPPER), GRP

CAPACITOR

Ref.No	Part No.	Description			Remark
C001	1-162-839-11	CERAMIC	0.01MF	10%	16V
C002	1-124-465-00	ELECT	0.47MF	20%	50V
C003	1-124-465-00	ELECT	0.47MF	20%	50V
C004	1-164-031-11	CERAMIC	33PF	5%	50V
C005	1-164-031-11	CERAMIC	33PF	5%	50V
C006	1-124-465-00	ELECT	0.47MF	20%	50V
C007	1-124-465-00	ELECT	0.47MF	20%	50V
C008	1-162-306-11	CERAMIC	0.01MF	20%	16V
C009	1-162-306-11	CERAMIC	0.01MF	20%	16V
C010	1-124-465-00	ELECT	0.47MF	20%	50V
C011	1-124-465-00	ELECT	0.47MF	20%	50V
C012	1-164-027-11	CERAMIC	22PF	5%	50V
C013	1-164-031-11	CERAMIC	33PF	5%	50V
C014	1-124-465-00	ELECT	0.47MF	20%	50V
C015	1-124-465-00	ELECT	0.47MF	20%	50V
C016	1-162-839-11	CERAMIC	0.01MF	10%	16V
C017	1-162-306-11	CERAMIC	0.01MF	20%	16V
C018	1-126-154-11	ELECT	47MF	20%	6.3V
C019	1-162-306-11	CERAMIC	0.01MF	20%	16V
C020	1-126-154-11	ELECT	47MF	20%	6.3V
C021	1-161-375-00	CERAMIC	0.0022MF	20%	16V
C022	1-161-375-00	CERAMIC	0.0022MF	30%	16V
C023	1-162-839-11	CERAMIC	0.01MF	10%	16V
C024	1-124-463-00	ELECT	0.1MF	20%	50V
C025	1-162-839-11	CERAMIC	0.01MF	10%	16V
C026	1-162-306-11	CERAMIC	0.01MF	20%	16V
C027	1-164-027-11	CERAMIC	22PF	5%	50V
C028	1-162-839-11	CERAMIC	0.01MF	10%	16V
C029	1-162-839-11	CERAMIC	0.01MF	10%	16V
C030	1-164-023-11	CERAMIC	15PF	5%	50V
C031	1-162-839-11	CERAMIC	0.01MF	10%	16V
C032	1-164-033-11	CERAMIC	39PF	5%	50V
C033	1-162-839-11	CERAMIC	0.01MF	10%	16V
C034	1-102-973-00	CERAMIC	100PF	5%	50V
C035	1-101-888-00	CERAMIC	68PF	5%	50V
C036	1-102-820-00	CERAMIC	330PF	5%	50V
C037	1-162-839-11	CERAMIC	0.01MF	10%	16V
C038	1-126-154-11	ELECT	47MF	20%	6.3V
C039	1-162-839-11	CERAMIC	0.01MF	10%	16V
C040	1-162-839-11	CERAMIC	0.01MF	10%	16V
C041	1-162-839-11	CERAMIC	0.01MF	10%	16V
C042	1-162-839-11	CERAMIC	0.01MF	10%	16V

CONNECTOR

Ref.No	Part No.	Description
CN001	1-569-709-11	SOCKET, CONNECTOR 8P
CN002	*1-564-030-00	PIN, CONNECTOR 5P
CN003	1-506-489-11	PIN, CONNECTOR 10P
CN004	1-506-489-11	PIN, CONNECTOR 10P

DIODE

Ref.No	Part No.	Description
D001	8-719-911-19	DIODE 1SS119
D002	8-719-911-19	DIODE 1SS119
D003	8-719-911-19	DIODE 1SS119

IC

Ref.No	Part No.	Description
IC001	8-759-320-52	IC HA118019NT

COIL

Ref.No	Part No.	Description	
L001	1-407-169-XX	INDUCTOR	100UH
L002	1-407-169-XX	INDUCTOR	100UH
L003	1-408-975-21	INDUCTOR	27UH
L004	1-408-973-21	INDUCTOR	18UH
L005	1-408-977-21	INDUCTOR	39UH
L006	1-408-970-21	INDUCTOR	10UH
L007	1-408-973-21	INDUCTOR	18UH
L008	1-408-985-21	INDUCTOR	180UH
L009	1-407-169-XX	INDUCTOR	100UH

TRANSISTOR

Ref.No	Part No.	Description
Q002	8-729-920-68	TRANSISTOR 2SA933S-QR
Q003	8-729-920-70	TRANSISTOR 2SC1740S-QR
Q004	8-729-900-89	TRANSISTOR DTC144ES
Q005	8-729-920-70	TRANSISTOR 2SC1740S-QR
Q006	8-729-900-89	TRANSISTOR DTC144ES
Q007	8-729-900-89	TRANSISTOR DTC144ES

When indicating parts by reference number, please include the board name.

Ref.No	Part No.	Description	Remark
		RESISTOR	
R001	1-249-404-00	CARBON 82 5% 1/4W	
R002	1-249-403-11	CARBON 68 5% 1/4W	
R003	1-249-404-00	CARBON 82 5% 1/4W	
R004	1-249-405-11	CARBON 100 5% 1/4W	
R005	1-249-429-11	CARBON 10K 5% 1/4W	
R007	1-249-429-11	CARBON 10K 5% 1/4W	
R008	1-249-429-11	CARBON 10K 5% 1/4W	
R009	1-247-891-00	CARBON 330K 5% 1/4W	
R010	1-249-420-11	CARBON 1.8K 5% 1/4W	
R011	1-247-895-00	CARBON 470K 5% 1/4W	
R012	1-249-433-11	CARBON 22K 5% 1/4W	
R013	1-249-432-11	CARBON 18K 5% 1/4W	
R014	1-249-417-11	CARBON 1K 5% 1/4W	
R016	1-249-417-11	CARBON 1K 5% 1/4W	
R017	1-249-421-11	CARBON 2.2K 5% 1/4W	
R018	1-249-421-11	CARBON 2.2K 5% 1/4W	
R019	1-249-412-11	CARBON 390 5% 1/4W	
R020	1-249-412-11	CARBON 390 5% 1/4W	
R021	1-249-416-11	CARBON 820 5% 1/4W	
R022	1-249-426-11	CARBON 5.6K 5% 1/4W	
R023	1-249-421-11	CARBON 2.2K 5% 1/4W	
R024	1-249-413-11	CARBON 470 5% 1/4W	
R025	1-249-415-11	CARBON 680 5% 1/4W	
R026	1-249-414-11	CARBON 560 5% 1/4W	
R027	1-249-416-11	CARBON 820 5% 1/4W	
R028	1-249-417-11	CARBON 1K 5% 1/4W	
R029	1-249-418-11	CARBON 1.2K 5% 1/4W	
R030	1-249-419-11	CARBON 1.5K 5% 1/4W	
R031	1-249-421-11	CARBON 2.2K 5% 1/4W	
R032	1-249-417-11	CARBON 1K 5% 1/4W	
R033	1-249-429-11	CARBON 10K 5% 1/4W	

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	*A-6754-052-A	MF-95 BOARD, COMPLETE **********************	
		CAPACITOR	
C061	1-164-075-11	CERAMIC 150PF 10% 50V	
C062	1-164-075-11	CERAMIC 150PF 10% 50V	
C063	1-164-159-11	CERAMIC 0.1MF 50V	
C099	1-162-851-11	CERAMIC 0.1MF 10% 16V	
		CONNECTOR	
CN060	1-568-667-11	CONNECTOR, BOARD TO BOARD 14P	
		JACK	
CNJ061	1-569-444-11	JACK, PIN 2P (AUDIO/VIDEO)	
		DIODE	
D061	8-719-940-82	DIODE SLR-34MC3	
D062	8-719-940-82	DIODE SLR-34MC3	
D063	8-719-110-36	DIODE RD13ES-B2	
D064	8-719-110-36	DIODE RD13ES-B2	
D065	8-719-110-36	DIODE RD13ES-B2	
D066	8-719-940-99	DIODE SLR-34VC3	(SLV-373UB)
D067	8-719-940-99	DIODE SLR-34VC3	(SLV-373UB)
		IC	
IC061	1-466-131-11	CATCHER RAY BLOCK GP1U52X	
		COIL	
L061	1-408-425-00	INDUCTOR 220UH	
		TRANSISTOR	
Q061	8-729-900-61	TRANSISTOR DTA114ES	(SLV-373UB)
		RESISTOR	
R061	1-249-437-11	CARBON 47K 5% 1/4W	
R062	1-249-423-11	CARBON 3.3K 5% 1/4W	
R063	1-249-407-11	CARBON 150 5% 1/4W	
R064	1-249-407-11	CARBON 150 5% 1/4W	
R065	1-249-427-11	CARBON 6.8K 5% 1/4W	
R066	1-247-848-11	CARBON 5.1K 5% 1/4W	
R067	1-249-404-00	CARBON 82 5% 1/4W	
R068	1-249-422-11	CARBON 2.7K 5% 1/4W	
R069	1-249-427-11	CARBON 6.8K 5% 1/4W	
R070	1-249-417-11	CARBON 1K 5% 1/4W	
R071	1-249-409-11	CARBON 220 5% 1/4W	(SLV-373UB)
R072	1-249-409-11	CARBON 220 5% 1/4W	(SLV-373UB)
R099	1-249-401-11	CARBON 47 5% 1/4W	
		VARIABLE RESISTOR	
RV061	1-230-819-11	RES, VAR, CARBON 2K	(SHARPNESS)
		SWITCH	
S061	1-571-977-11	SWITCH, TACTIL	(POWER)
S062	1-571-977-11	SWITCH, TACTIL	(EJECT)
S063	1-570-854-11	SWITCH, SLIDE	(VTR MODE)
S065	1-571-977-11	SWITCH, TACTIL (VPS)	(SLV-373VP)

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	*1-635-173-11	MF-96 BOARD ************	
		CONNECTOR	
CN080	1-569-336-11	CONNECTOR, BOARD TO BOARD 7P	
		SWITCH	
S081	1-466-302-11	SWITCH, ROTARY	

When indicating parts by reference number, please include the board name.

MD-40

Ref.No	Part No.	Description			Remark
	*A-6754-055-A	MD-40 BOARD, COMPLETE **********************			
	*3-736-144-01	HOLDER, LED			
	3-736-149-01	HOLDER, ST SENSOR			
		CAPACITOR			
C001	1-161-494-00	CERAMIC	0.022MF		25V
C002	1-161-494-00	CERAMIC	0.022MF		25V
C003	1-124-240-71	ELECT	10MF	20%	25V
C004	1-161-379-00	CERAMIC	0.01MF	30%	16V
C005	1-124-240-71	ELECT	10MF	20%	25V
C006	1-126-154-11	ELECT	47MF	20%	6.3V
C008	1-164-159-11	CERAMIC	0.1MF		50V
C009	1-164-159-11	CERAMIC	0.1MF		50V
C013	1-164-159-11	CERAMIC	0.1MF		50V
C014	1-164-159-11	CERAMIC	0.1MF		50V
C015	1-164-159-11	CERAMIC	0.1MF		50V
C016	1-124-240-71	ELECT	10MF	20%	25V
C017	1-124-240-71	ELECT	10MF	20%	25V
C018	1-124-240-71	ELECT	10MF	20%	25V
C019	1-162-852-11	CERAMIC	0.15MF	10%	16V
C020	1-162-851-11	CERAMIC	0.1MF	10%	16V
C025	1-124-240-71	ELECT	10MF	20%	25V
C026	1-124-240-71	ELECT	10MF	20%	25V
C027	1-124-240-71	ELECT	10MF	20%	25V
		CONNECTOR			
CN001	*1-564-201-11	PIN HEADER, ANGLE 10P			
CN002	1-569-335-11	CONNECTOR, BOARD TO BOARD 9P			
CN003	1-569-334-11	CONNECTOR, BOARD TO BOARD 5P			
CN004	1-569-341-11	CONNECTOR, BOARD TO BOARD 19P			
CN005	1-506-468-11	PIN, CONNECTOR 3P			
CN006	1-569-333-11	CONNECTOR, BOARD TO BOARD 3P			
CN007	1-569-341-11	CONNECTOR, BOARD TO BOARD 19P			
		DIODE			
D001	8-719-974-65	DIODE GL451V (LED)			
D002	8-719-109-97	DIODE RD6.8ES-B2			
D003	8-719-109-97	DIODE RD6.8ES-B2			
		IC			
IC002	8-759-938-12	IC BA10324			
IC004⚠.	8-759-420-83	IC AN3814K			
IC005	8-759-008-72	IC LM393N			
		PHOTO SENSOR			
PH001	8-759-144-33	PHOTO SENSOR PS6002			
PH002	8-759-144-33	PHOTO SENSOR PS6002			
		TRANSISTOR			
Q001	8-729-921-53	PHOTO TRANSISTOR PT483F1			
Q002	8-729-921-53	PHOTO TRANSISTOR PT483F1			

Ref.No	Part No.	Description				Remark
		RESISTOR				
R001	1-249-423-11	CARBON	3.3K	5%	1/4W	
R002	1-249-423-11	CARBON	3.3K	5%	1/4W	
R003	1-249-426-11	CARBON	5.6K	5%	1/4W	
R004	1-249-426-11	CARBON	5.6K	5%	1/4W	
R005	1-249-420-11	CARBON	1.8K	5%	1/4W	
R006	1-249-441-11	CARBON	100K	5%	1/4W	
R007	1-249-441-11	CARBON	100K	5%	1/4W	
R008	1-249-425-11	CARBON	4.7K	5%	1/4W	
R009	1-249-409-11	CARBON	220	5%	1/4W	
R010	1-249-425-11	CARBON	4.7K	5%	1/4W	
R011	1-249-437-11	CARBON	47K	5%	1/4W	
R012	1-249-421-11	CARBON	2.2K	5%	1/4W	
R013	1-249-429-11	CARBON	10K	5%	1/4W	
R014	1-249-427-11	CARBON	6.8K	5%	1/4W	
R015	1-249-437-11	CARBON	47K	5%	1/4W	
R016	1-249-421-11	CARBON	2.2K	5%	1/4W	
R022	1-249-430-11	CARBON	12K	5%	1/4W	
R023	1-249-429-11	CARBON	10K	5%	1/4W	
R024	1-249-430-11	CARBON	12K	5%	1/4W	
R025	1-249-429-11	CARBON	10K	5%	1/4W	
R026	1-249-437-11	CARBON	47K	5%	1/4W	
R028	1-249-418-11	CARBON	1.2K	5%	1/4W	
R029	1-249-395-11	CARBON	15	5%	1/4W	
R030	1-249-395-11	CARBON	15	5%	1/4W	
R031	1-249-395-11	CARBON	15	5%	1/4W	
R032 ⚠.	1-216-347-11	METAL OXIDE	0.68	5%	1W	F
		SWITCH				
S001	1-570-953-11	SWITCH, PUSH (1 KEY)				
S002	1-570-953-11	SWITCH, PUSH (1 KEY)				
************	************	************	*******	*******	*******	*******
		MISCELLANEOUS *************				
	A-6761-129-A	HEAD BLOCK ASSY, ACE				
	⚠.1-413-535-11	BLOCK, POWER (SLV-373UB)				
	⚠.1-413-537-11	BLOCK, POWER (SLV-373VP)				
	⚠.1-413-538-11	BLOCK, POWER (SLV-373)				
	1-466-315-31	SWITCH BLOCK, CONTROL (SLV-373VP)				
	1-543-647-11	HEAD, FE				
	1-550-573-11	DRUM ASSY (DZR-22R)				
	1-550-574-11	DRUM ASSY (DZL-22A-R)				
CN001	1-506-482-11	PIN, CONNECTOR 3P				
M903	X-3733-302-1	MOTOR ASSY, CAM				
M904	X-3727-784-1	MOTOR ASSY (LOADING)				
S001	1-571-920-11	SWITCH, ROTARY				

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Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

ACCESSORIES AND PACKING MATERIALS

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Part No.	Description	Remark
1-465-514-11	COMMANDER, REMOTE (RMT-V373)	
1-551-513-00	CORD ASSY, COAXIAL	
⚠.1-558-032-11	CORD, POWER (SLV-373UB)	
⚠.1-575-131-11	CORD, POWER (SLV-373)	
⚠.1-575-132-11	CORD, POWER (SLV-373VP)	
3-695-308-01	DRIVER, VOLUME	
*3-744-232-01	CUSHION (UPPER)	
*3-744-233-01	CUSHION (LOWER)	
*3-746-027-21	INDIVIDUAL CARTON	
3-751-655-11	MANUAL, INSTRUCTION (ENGLISH)(SLV-373UB)	
3-751-655-41	MANUAL, INSTRUCTION (SLV-373VP) (FRENCH/GERMAN/DUTCH/ITALIAN)	
3-751-655-51	MANUAL, INSTRUCTION (SLV-373) (SWEDISH SPANISH PORTUGUESE/ITALIAN)	
*3-751-893-41	CARD, CONTROL INSTANT	

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HARDWARE LIST

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SET-SCT

7-621-732-08	SET-SCT, HEX. 2X3 FLAT POINT

STOP RING

7-624-102-04	STOP RING 1.5, TYPE -E

SCREW

7-627-552-08	SCREW, PRECISION +P 1.7X2.5
7-628-254-00	SCREW +PS 2.6X5
7-682-547-04	SCREW +P 3X6
7-682-548-04	SCREW +P 3X8
7-682-645-01	SCREW +PS 3X4
7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3
7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3
7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3

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Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

SECTION 7
MECHANICAL ADJUSTMENTS

Refer to "VHS MECHANICAL ADJUSTMENT MANUAL Ⅱ " separately issued for MECHANICAL ADJUSTMENTS.

PERIODIC CHECK AND REPLACEMENT

In order to obtain the best performance from this unit and make full use of its capabilities, and to extend the life of the unit and tapes, it is recommended that the following periodic checks and maintenance be performed.

* The following must be done after every repair regardless of how many hours the user has operated the machine.

CLEANING OF ROTATING HEAD DISK ASSEMBLY

1) Press a chamois cloth (Jig Ref. No. J-7) which has been dipped in cleaning fluid (Jig Ref. No. J-5) lightly against the rotating drum assembly, then do the cleaning by slowly rotating the rotating head disk by hand. (Never try to clean by using the motor to turn it.)
2) Never try to clean by moving the chamois cloth at a vertical angle to the head tip. There is a very great danger of damaging the head tip if this is doen.

CLEANING OF THE TAPE MOVEMENT SYSTEM

1) Clean the surfaces which the tape contacts during its movement (tape guide, drum assembly surface, capstan, pinch roller, etc.) with a chamois cloth that has been dipped in cleaning fluid.

CLEANING THE DRIVE SYSTEM

1) Clean the driving parts with a cloth that has been dipped in cleaning fluid.

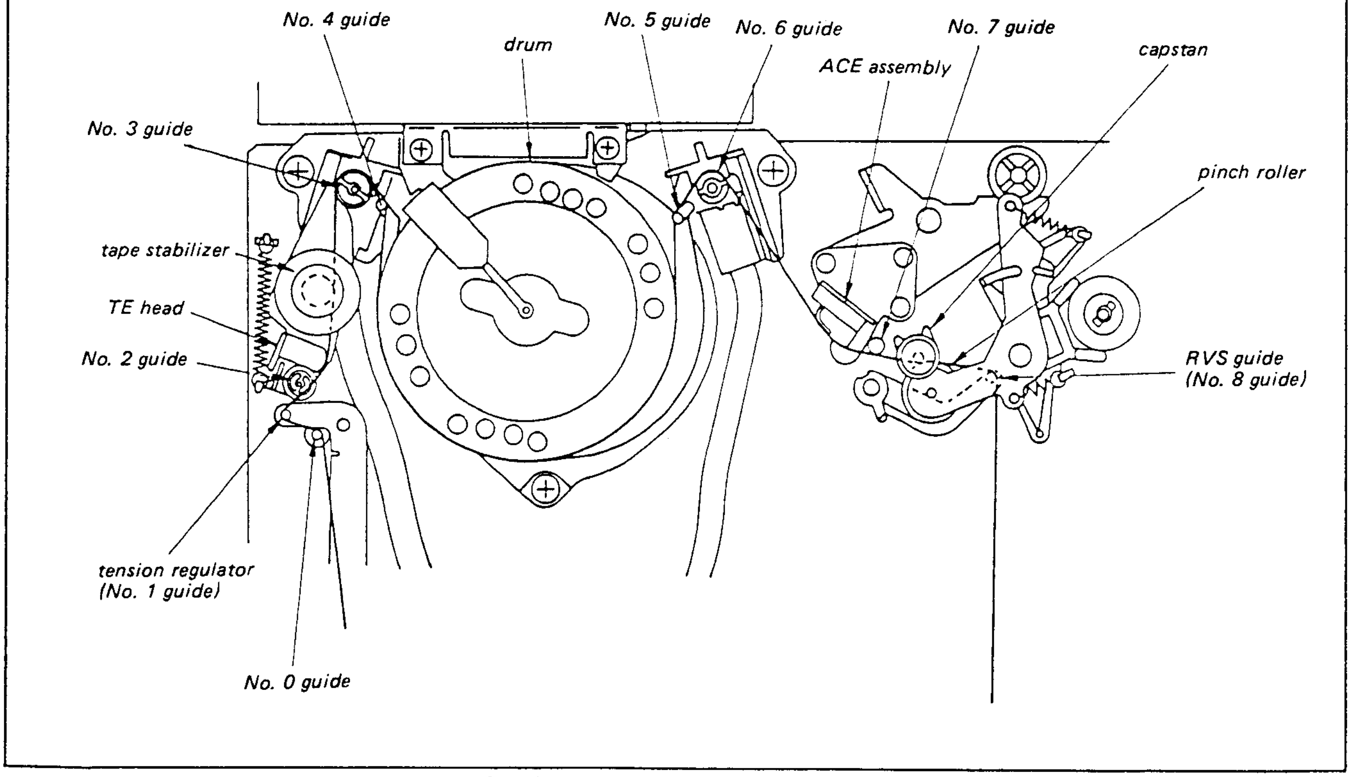

No. 4 guide
drum
No. 5 guide
No. 6 guide
No. 7 guide
ACE assembly
capstan
No. 3 guide
pinch roller
tape stabilizer
TE head
No. 2 guide
RVS guide
(No. 8 guide)
tension regulator
(No. 1 guide)
No. 0 guide

Fig. 1. Parts requiring cleaning

PERIODIC CHECK ITEMS

Perform the maintenance and check listed on the table below, according to users operating hours.

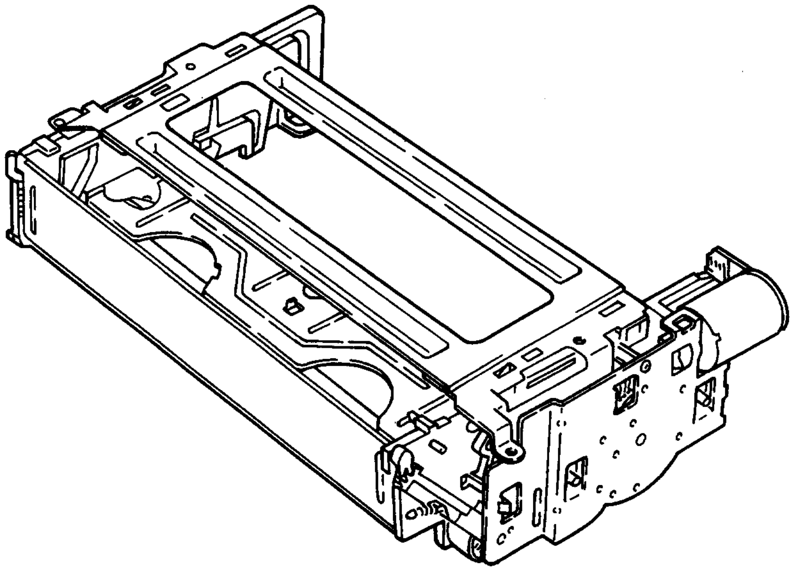
			Operating Hours (H)										
Maintenance & Check		Replacement Part No.	500	1,000	1,500	2,000	2,500	3,000	3,500	4,000	4,500	5,000	Remarks
Tape Transportation System	Cleaning of tape transportation system		○	○	○	○	○	○	○	○	○	○	This cleaning must be done whenever a repair is made.
	Cleaning and degaussing of ACE ass'y	A-6761-129-A	○	○	○	○	○	○	○	○	○	○	
	Cleaning & degaussing of video disk ass'y		○	○	○	○	○	○	○	○	○	○	The life of the head varies, depending on operational conditions and method.
Driving System	Timing belt	3-736-013-01	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	This cleaning must be done whenever a repair is made.
Performance Confirmation	Abnormal sound		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	Adjust or replace the section which causes abnormal sound.
	Measurement of FWD back tension		-	☆	-	☆	-	☆	-	☆	-	☆	Confirmation must be made according to "VHS MECHANICAL ADJUSTMENT MANUAL II" item 4-1-1. Specified value: adjust to 30 to 42 g·cm (when measured with torque cassette tape)
	Confirmation of brake system		-	☆	-	☆	-	☆	-	☆	-	☆	Confirmation must be made according to section
	Confirmation of record & playback functions		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	Perform the confirmation whenever repair is made.
	Measurement of forward torque		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	Adjust to 80-170 g·cm

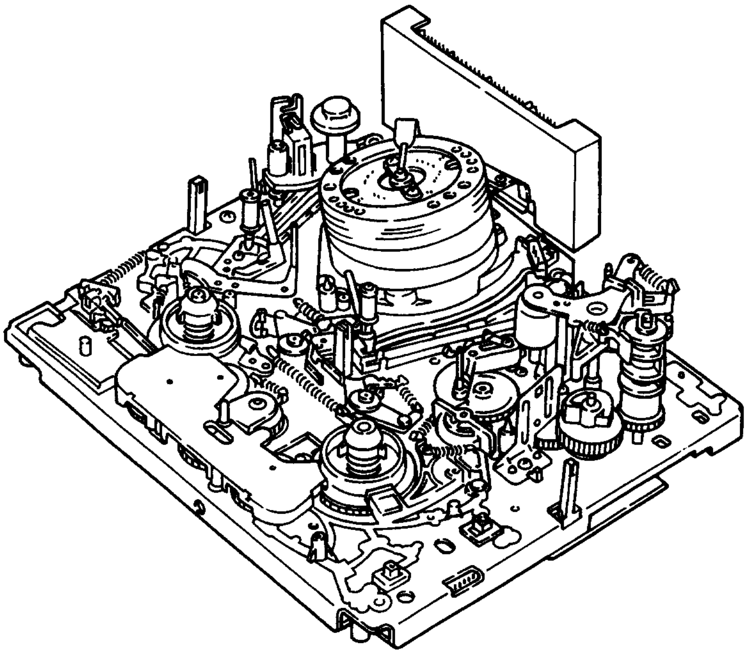
○ Cleaning ☆ Confirmation

Note: On overhaul
When overhauling the unit, replace parts as indicated in the above table.

VHS MECHANICAL ADJUSTMENT MANUAL II

- Please use in conjunction with the SERVICE MANUAL.
- This VHS MECHANICAL ADJUSTMENT MANUAL II can be used for NTSC system and PAL system.





VHS VIDEO RECORDER

SONY®

MICROFILM

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1. PREPARATIONS FOR CHECKS, ADJUSTMENTS AND REPLACEMENT OF THE DECK MECHANISM

Note : Refer to "Replacement Method" in the Service Guide for instructions on replacing the cabinet and PC boards. DO not perform cassette loading or threading with the VCR positioned upside-down.

1-1. LOADING AND UNLOADING VIDEO CASSETTES WITH THE POWER OFF. (Fig. 1-1.)

1-1-1. Manual loading and unloading

1) Rotate the loading motor in the direction of arrow Ⓐ until loading is compleated.
   (When unloading, rotate the loading motor in the direction of arrowⒷ.)

1-1-2. Loading and unloading using a separate power source.

1) Cassette loading is performed by applying approx. 10V (300 mA) to the power terminal of the loading motor using a stabilized DC power source.
   (When unloading, apply the same voltage to the opposite polarity of the power terminal.)

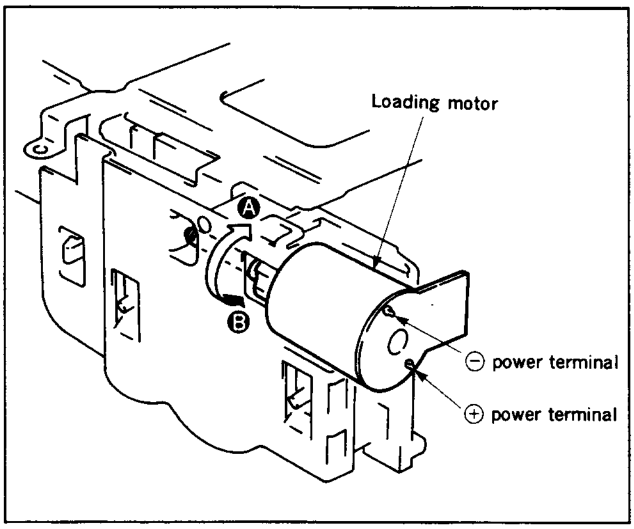


Fig. 1-1.

1-2. THREADING AND UNTHREADING WITH THE POWER OFF. (Fig. 1-2)

1-2-1. Manual threading and unthreading

1) Rotate the cam motor ❶ in the direction of arrowⒶuntil threading is completed.
   (When unthreading, rotate the cam motor ❶ in the direction of arrowⒷ.)

1-2-2. Threading and unthreading using a separate power source.

1) Threading is performed by applying approx. 10V (500 mA) to the power terminal for the cam motor ❶ using a DC stabilized power source.
   (When unthreading, apply the same voltage to the opposite polarity of the power terminal.)

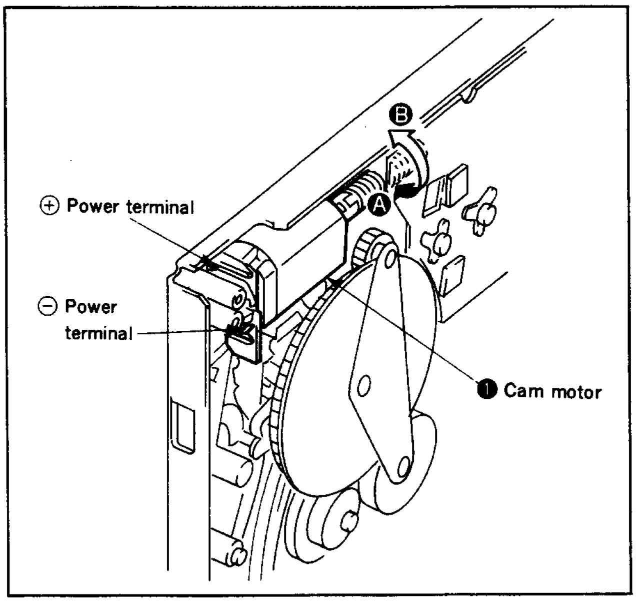


Fig. 1-2.

1-3. TO COMPLETE THREADING WITH THE FL CASSETTE CONTROLLER REMOVED. (Fig. 1-3)

1) Unplug the AC power cord from the power outlet.
2) Shield the supply, take-up sensors and the LED with black-masking tape.
3) Hold the cassatte down switch depressed by taping it, etc.
4) Plug the AC power cord into a power outlet.
(At this time, the power should turn on and the tape rewinds for approx. 10 seconds, and the power turns off.)
5) Turn the power switch ON so that the mechanism is ready for loading.

Note : In this condition, the VTR is ready to operate in the different operating modes, including the record mode. At this time, rewind the tape for at least 15 seconds, then perform fast forward (FF).

Note : Following the above, be sure to reset the mechanism to the previous state as outlined below.

1) Remove the black-masking tape shielding the supply and take-up sensors, the LED and the tape holding cassette down switch.
2) Unplug the AC power cord from the power outlet to reset the system control microprocessor.

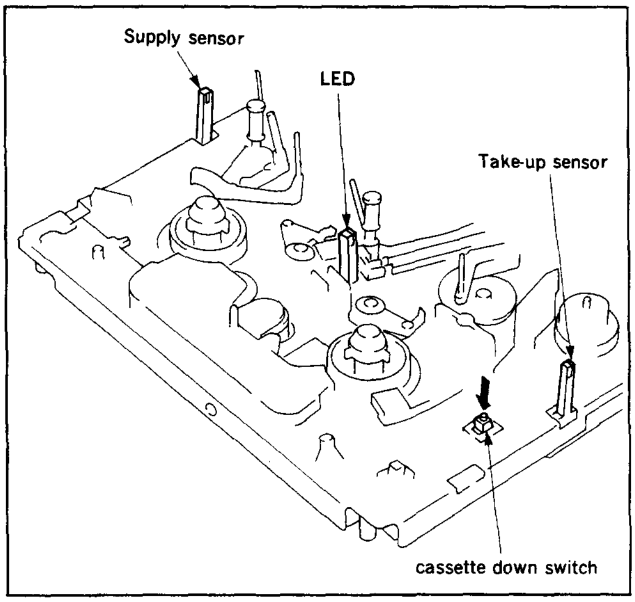


Fig. 1-3.

2. PERIODICAL INSPECTION AND REPLACEMENT

We recommend performing the following periodical inspections and maintenance in order to ensure that the unit operates in top condition and offers full performance, as well as realizes a long life of the mechanism and tapes.

* Be sure to perform the following maintenance procedures after the unit is repaired (regardless how long the unit has been used.)

2-1. CLEANING THE ROTARY HEAD DISC ASS'Y

1) Press Attach a deer skin cloth (Jig. Ref. No. J-7) soaked in cleaning solution (Jig. Ref. No. J-5) lightly to the rotary drum ass'y, then turn the rotary head disc slowly by hand to clean the surface of the rotary drum ass'y. (At this time, do not turn on the power motor to rotate the rotary head disc for cleaning.)
2) Also, do not wipe the drum ass'y by moving the deer skin cloth vertically across the head as this could damage of the tip of the head.

2-2. CLEANING THE TAPE TRANSPORT SYSTEM

1) Clean the tape transport surfaces (tape guide, a drum ass'y surfaces, capstan, pinch roller, etc.) with a deer skin cloth soaked in an approved in the recommended cleaning solution.

2-3. CLEANING THE DRIVE SYSTEM

1) Wipe the drive mechanism with an ordinary cloth soaked in an approved cleaning solution.

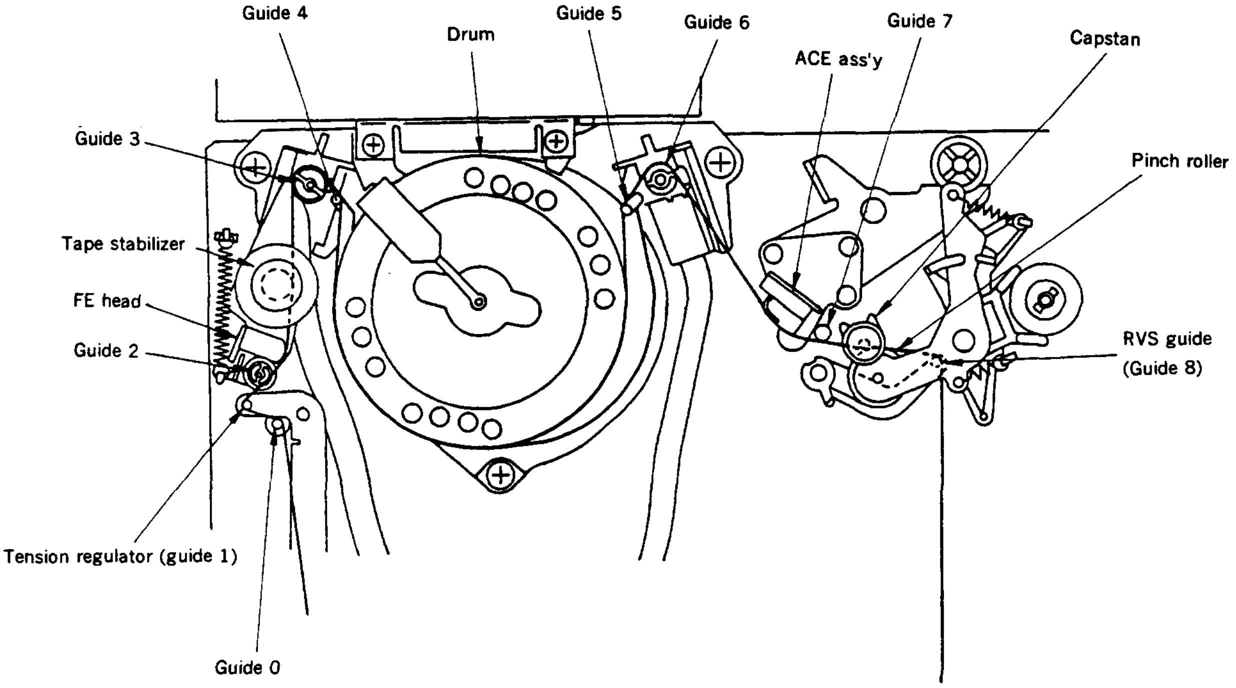

Guide 4
Drum
Guide 5
Guide 6
Guide 7
ACE ass'y
Capstan
Guide 3
Pinch roller
Tape stabilizer
FE head
Guide 2
RVS guide
(Guide 8)
Tension regulator (guide 1)
Guide 0

Fig. 2-1.

2-4. PERIODIC MAINTENANCE

Location of Maintenance and Check		User Hours Replacement Part No.	500	1,000	1,500	2,000	2,500	3,000	3,500	4,000	4,500	5,000	Remarks
Perfor mance Check	Clean tape running surfaces	——	○	○	○	○	○	○	○	○	○	○	Always perform after repair.
	Clean, degauss ACE ass'y	——	○	○	○	○	○	○	○	○	○	○	
	Clean, degauss video disc ass'y	——	○	○	○	○	○	○	○	○	○	○	Head life is greatly affected by environment and method of use.
Driving System	Reel belt	3-736-013-01	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	Always perform after repair.
Tape Running System	Abnormal noise	——	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	Adjust or replace source of abnormal noise.
	Back tension measurement	——	–	☆	–	☆	–	☆	–	☆	–	☆	Check according to 4-1-1. Spec : 24 — 34g/cm (Measured with torque cassette)
	Brake system check	——	–	☆	–	☆	–	☆	–	☆	–	☆	
	REC/PB function check	——	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	Always perform after repair.
	Forward torque measurement		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	Spec : 80 — 140 g·cm

○ Cleaning ☆ Chec

Note : Refer to the above items for part replacement whe performing an overhaul.

2-5. SERVICE TOOLS AND JIGS

Ref. No.	Description	Part No.	Printing on jig	Remarks
J-1	Master plane	H-7099-279-H		
J-2	Reel disc height jig	H-7099-038-H		
J-3	Torque gauge adapter	H-7099-035-H		
J-4	Torque gauge	H-7099-039-H		
J-5	0.93mm Allen wrench	H-7099-202-H		
J-6	NTSC torque cassette VHT-063S PAL torque cassette	J-6082-011-A J-6082-066-A		For rewind torque and back tension
	NTSC torque cassette VHT-404S PAL torque cassette	J-6082-012-A J-6082-067-A		For cue/review
J-7	NTSC alignment tape JVC-MH-1 PAL alignment tape JVC-MH-2	H-7099-046-H H-7099-052-H		
	NTSC Hi-Fi alignment tape PAL Hi-Fi alignment tape	H-7099-153-H H-7099-175-H		
J-8	Cleaning fluid	Y-2031-001-0	—	
J-9	Chamois cloth	2-034-697-00	—	Cleaning
J-10	Head degausser	Widely available	—	Video, audio head degaussing
J-11	Small adjustment mirror (with handle) Small adjustment mirror (mirror only)	J-6080-029-A J-6080-030-1	SL-5052	For tape path and tape running adjustment and check

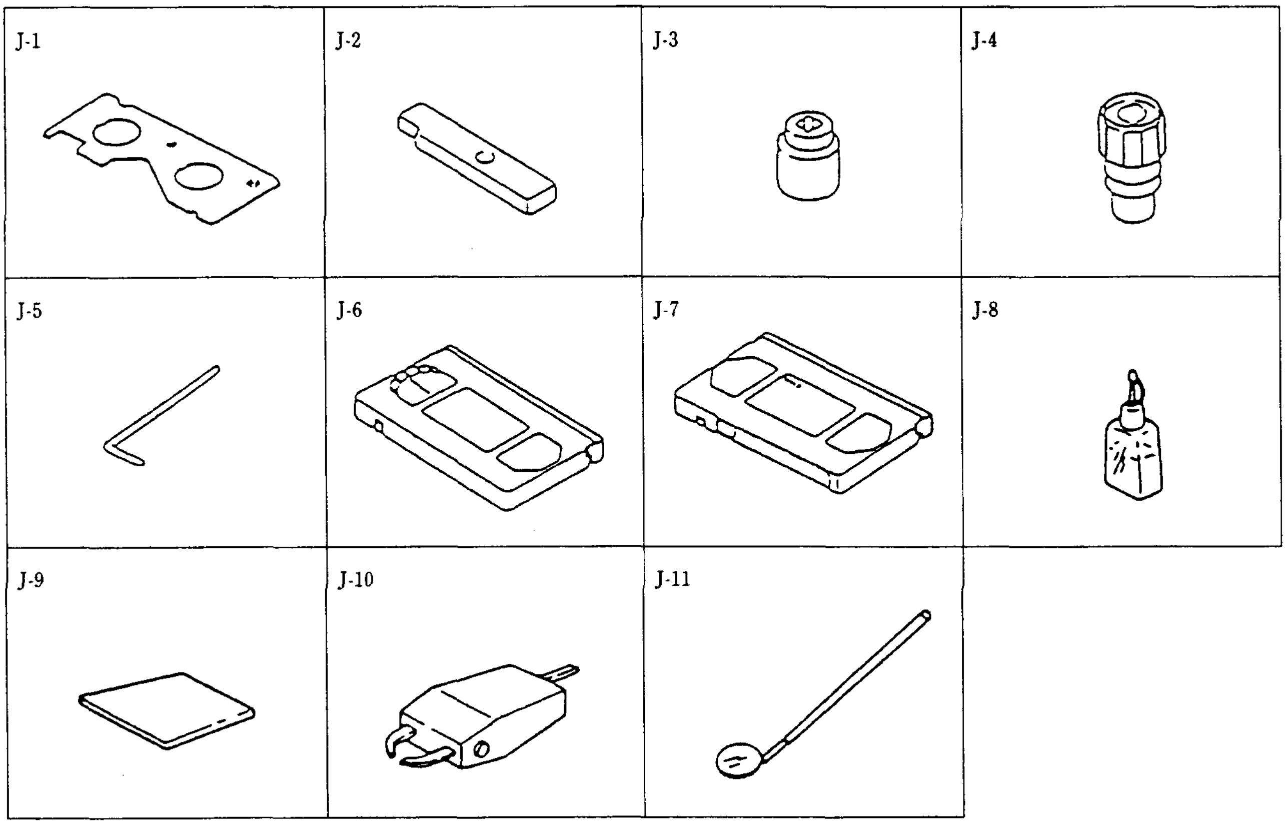


Fig. 2-2. Service tools and jigs

3. REPLACEMENT OF MAJOR COMPONENT PARTS OF THE DECK MECHANISM

Note:
- ○ Refer to "Replacement Method" in the Service Guide for replacing the cabinet and PC boards.
- ○ When mounting parts, reverse the replacement procedure while referring to "Precautions on Mounting Parts".
- ○ After grease coated parts such as gears are r placed, re-grease the replaced part.
- ○ Do not touch the guides (taped surface) and bra shoe directly with your fingers or grease them, e
- ○ Gears must be mounted so that they mesh wi each other.

3-1. FL MECHANISM

3-1-1. FL door (Fig. 3-1.)

1) Press the claw ❶ in the direction of arrow Ⓐ, then remove the FL door ❷ in the direction of arrow Ⓑ.

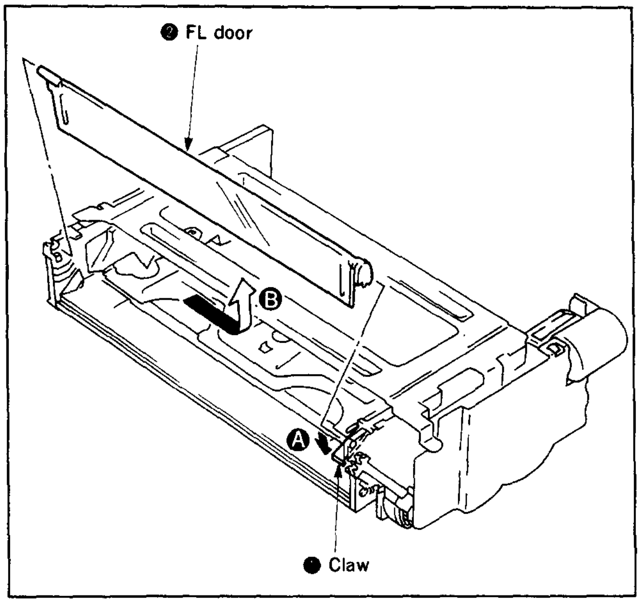

❷ FL door
Ⓑ
Ⓐ
❶ Claw

Fig. 3-1.

3-1-2. Erasure protection lever (Fig. 3-2)

1) Remove the spring ❶.
2) Disengage the claw ❷, then slide the erasure protection lever ❸ in the direction of arrow Ⓐ.
3) Disengage the erasure protection lever ❸ in the direction of arrow Ⓑ.

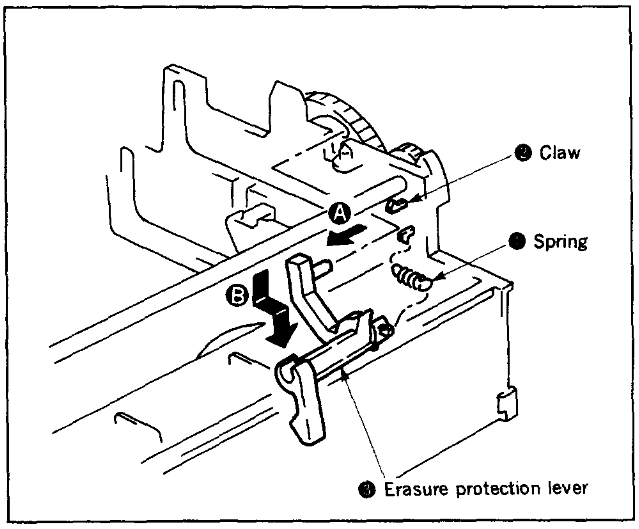

❷ Claw
Ⓐ
❶ Spring
Ⓑ
❸ Erasure protection lever

Fig. 3-2.

3-1-3. Gear cover ass'y (Fig. 3-3)

1) Disengage the four claws ❶, then remove the gear cov ass'y ❷.

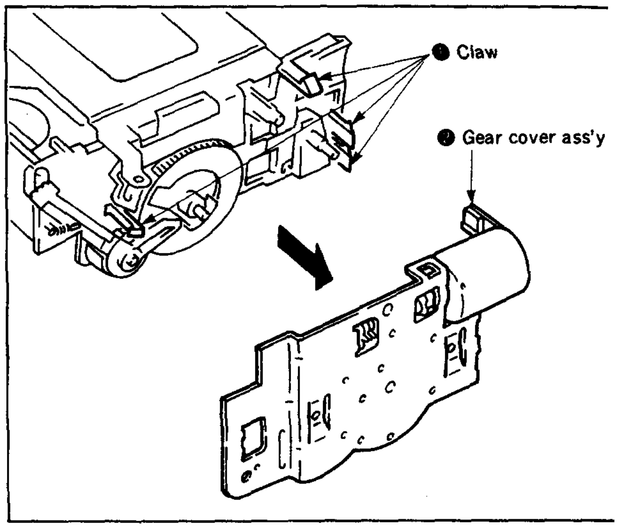

❶ Claw
❷ Gear cover ass'y

Fig. 3-3.

3-1-4. Loading motor, worm gear (FL), worm whe (FL), worm bearing (Fig. 3-4)

1) Remove washer 3 ❶, then pull out the worm wheel (F ❷.
2) Remove the two screws ❸, then remove the loadin motor ❹.
3) Remove the worm gear (FL) ❺ and worm bearing ❻.

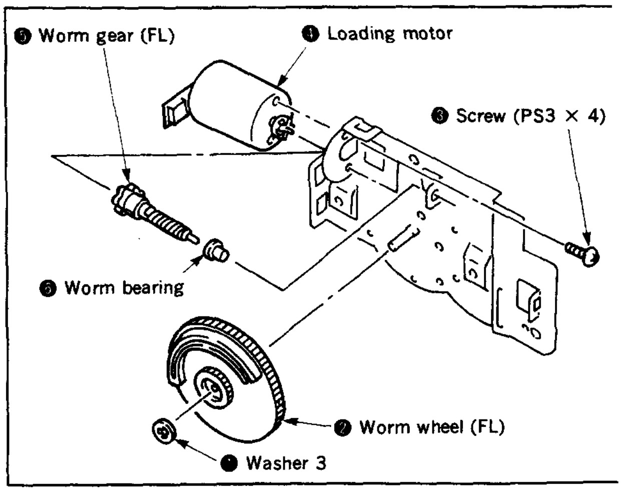

❺ Worm gear (FL)
❹ Loading motor
❸ Screw (PS3 × 4)
❻ Worm bearing
❷ Worm wheel (FL)
❶ Washer 3

Fig. 3-4.

3-1-5. Door OPEN/CLOSE arm (Fig. 3-5)

1) Remove the spring ❶.
2) Pull out the door OPEN/CLOSE arm ❷.

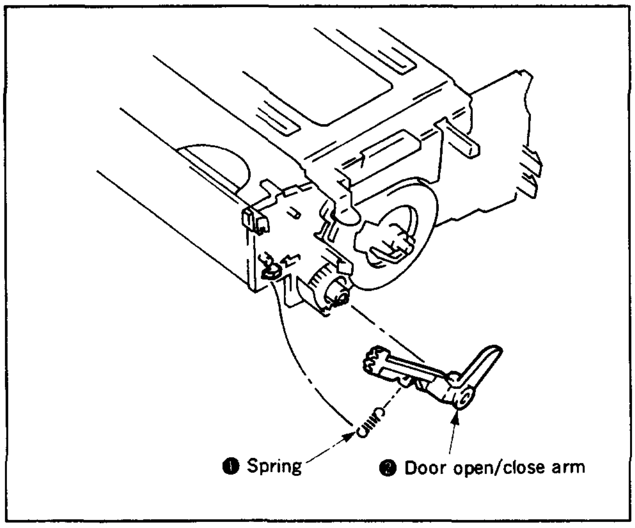

❶ Spring
❷ Door open/close arm

Fig. 3-5.

[Precautions on remounting] (Figs. 3-6 and 3-7.)

- ○ When mounting the gear cover ass'y, match up the two holes on the gear cover ass'y with the two holes on the worm wheel (FL) and then with the hole on the right drive arm ass'y.
- ○ Mesh the FL door and the door OPEN/CLOSE arm together as shown in Ⓐ section in the figure below.
- ○ The erasure protection lever shaft must fit into the groove on the left drive arm ass'y.

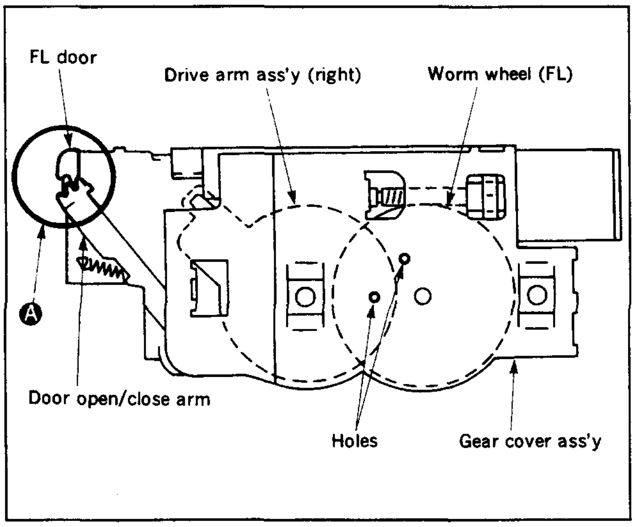

FL door
Drive arm ass'y (right)
Worm wheel (FL)
Ⓐ
Door open/close arm
Holes
Gear cover ass'y

Fig. 3-6.

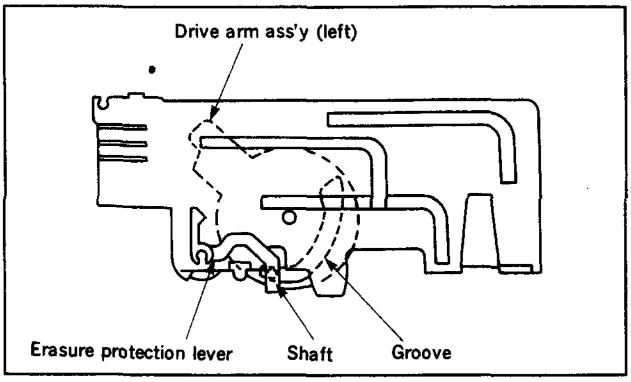

Drive arm ass'y (left)
Erasure protection lever
Shaft
Groove

Fig. 3-7.

3-2. TS ASS'Y AND GUIDE ROLLER ASS'Y No. 2 (Fig. 3-8)

1) Remove the spring ❶.
2) *Remove the TS ass'y ❷ in the direction of arrow* Ⓐ.
3) Turn guide roller ass'y No. 2 ❸ in the direction of arrow Ⓑ and pull it out.

[Precautions on remounting]

- ○ Clean the surface of guide roller No. 2 ❸ where the tape is attached.
- ○ Apply lubricant over the section shown in Figure A below.

[Adjustment after replacement]

- ○ Perform tape path adjustments as described in 4-1.

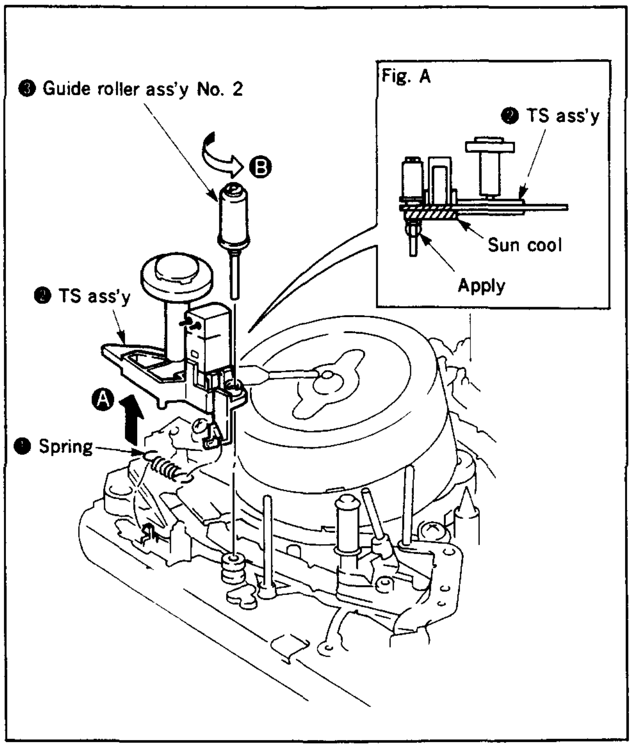

❸ Guide roller ass'y No. 2
Ⓑ
❷ TS ass'y
Ⓐ
❶ Spring
Fig. A
❷ TS ass'y
Sun cool
Apply

Fig. 3-8.

3-3. ACE ASS'Y (Fig. 3-9)

1) Slide the torsion coil spring ❶ in the direction of the arrow.
2) Remove the nylon nut N3 ❷, then pull out the ACE ass'y ❸.
3) Remove the ACE adjuster screw ❹.

[Precautions on remounting]

- ○ Clean the surface of the ACE ass'y ❸ where the tape is attached.
- ○ Hook both ends of the torsion coil spring ❶ to the ass'y as shown in Figure A below.
- ○ Adjust the ACE adjuster screw ❹ to the height shown in Figure A.

[Adjustment after replacement]

- ○ Perform tape path adjustments as described in 4-1.

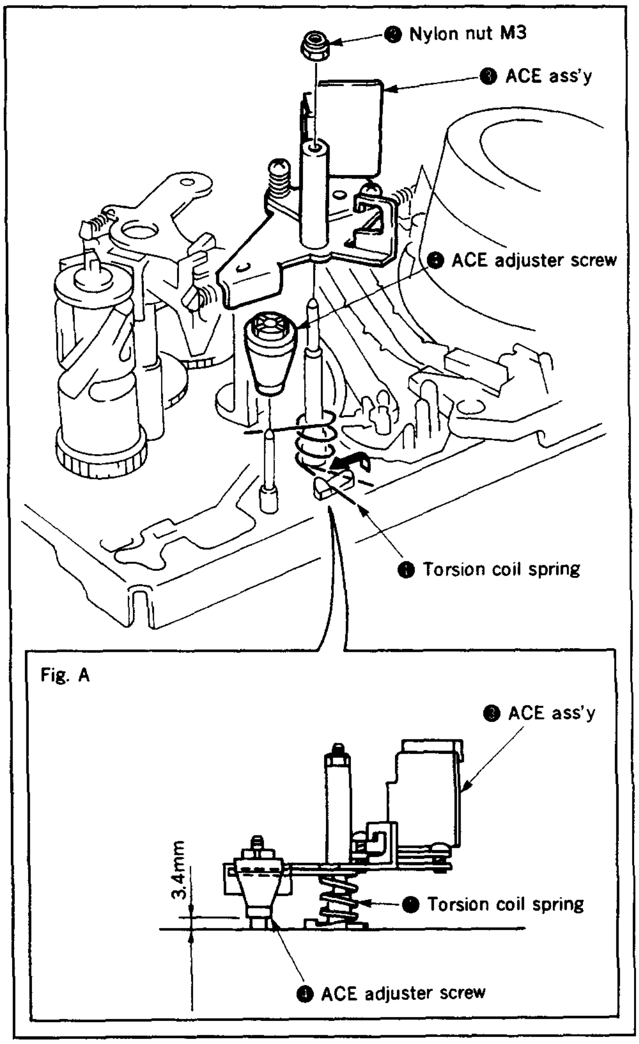

❷ Nylon nut M3
❸ ACE ass'y
❹ ACE adjuster screw
❶ Torsion coil spring
Fig. A
❸ ACE ass'y
3.4mm
❶ Torsion coil spring
❹ ACE adjuster screw

Fig. 3-9.

3-4. DRUM ASS'Y (Fig. 3-10)

1) Remove the three screws ❶, then remove the drum ass ❷.

[Precautions on remounting]

- ○ Do not touch the head tips ❸ and the ground plate directly with your fingers or tools.
- ○ Clean the surface of the drum ass'y ❷ where a tape attached.
- ○ The stopper ❺ must be attached at the point shown in t figure below.
- ○ Screws must be fastened with a 6kg•cm (±1kg•cm) scre fastening torque. (The screws can be mounted in a order.)

[Adjustment after replacement]

- ○ Perform tape path adjustments as described in 4-1.

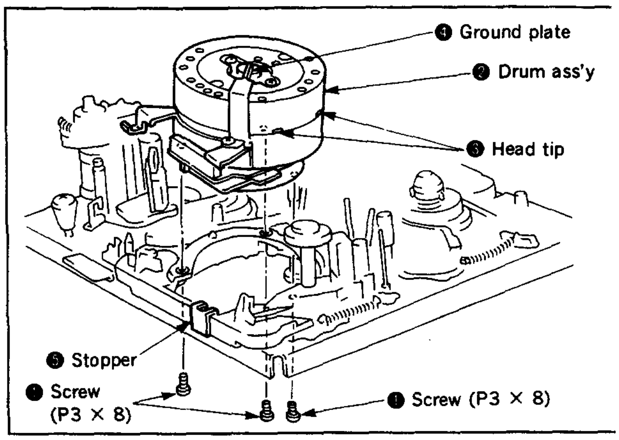

❹ Ground plate
❷ Drum ass'y
❸ Head tip
❺ Stopper
❶ Screw (P3 × 8)
❶ Screw (P3 × 8)

Fig. 3-10.

3-5. DRUM BASE ASS'Y (Fig. 3-11)

1) Remove the drum. (Refer to 3-4.)
2) Remove the three screws ❶, then remove the drum ba ass'y ❷.

[Precautions on remounting]

- ○ The spacer ❸ for the drum base must be mounted in i previous position as shown in the figure below. (Note that some units do not feature the spacer ❸.)
- ○ Fastening torque must be 10kg•cm (±1kg•cm)
- ○ The screws must be mounted in order of (a),(b) and (c).

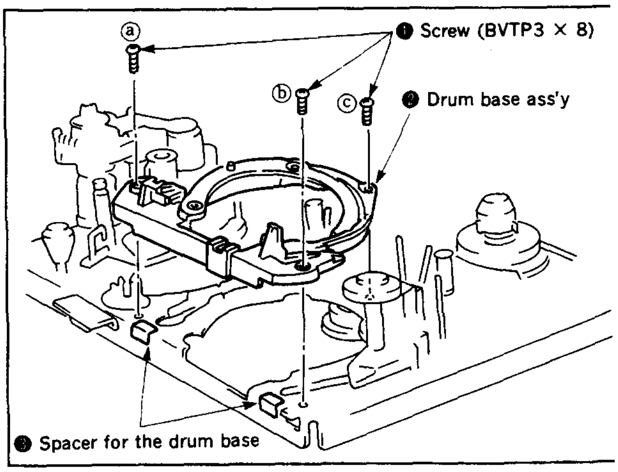

ⓐ
❶ Screw (BVTP3 × 8)
ⓑ
ⓒ
❷ Drum base ass'y
❸ Spacer for the drum base

Fig. 3-11.

3-6. PINCH ROLLER ASS'Y AND ELEVATOR CAM (Fig. 3-12)

1) Remove the two claws ❶, then pull out the stopper ❷.
2) Pull out the pinch roller ass'y ❸.
3) Pull out the elevator cam ❹.

[Precautions on remounting]

- ○ Clean the surface of the pinch roller ass'y ❸ where the tape is attached.
- ○ Match up the ▯ marks on the elevator cam ❹ and cam gear, press ❺.

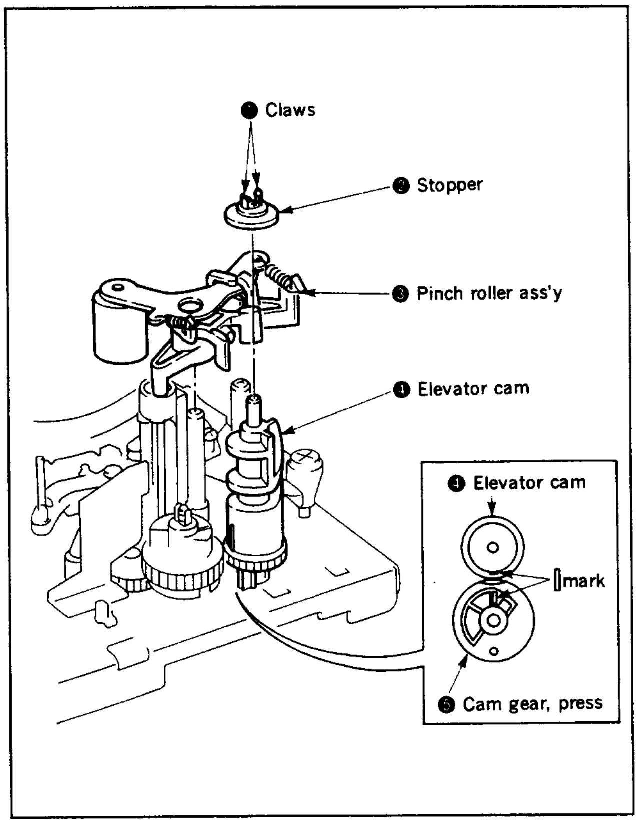

❶ Claws
❷ Stopper
❸ Pinch roller ass'y
❹ Elevator cam
❹ Elevator cam
▯mark
❺ Cam gear, press

Fig. 3-12.

3-7. CAM GEAR, PRESS AND TRANSMISSION GEAR (Fig. 3-13)

1) Remove the pinch roller ass'y. (Refer to 3-6.)
2) Remove the screw ❶, then remove the lid release plate ❷.
3) Remove the two claws ❸, then pull out the cam gear, press ❹.
4) Remove the washer 2 ❺, then pull out the transmission gear ❻.

[Precautions on remounting]

- ○ Check the top and bottom of the transmission gear ❻.
- ○ Match up the hole ❼ on the chassis with the hole ❼ on the cam gear, press ❹.
- ○ Match up the ▯ mark on the cam gear, press ❹ with the ▯ mark on the alleviator cam ❽.

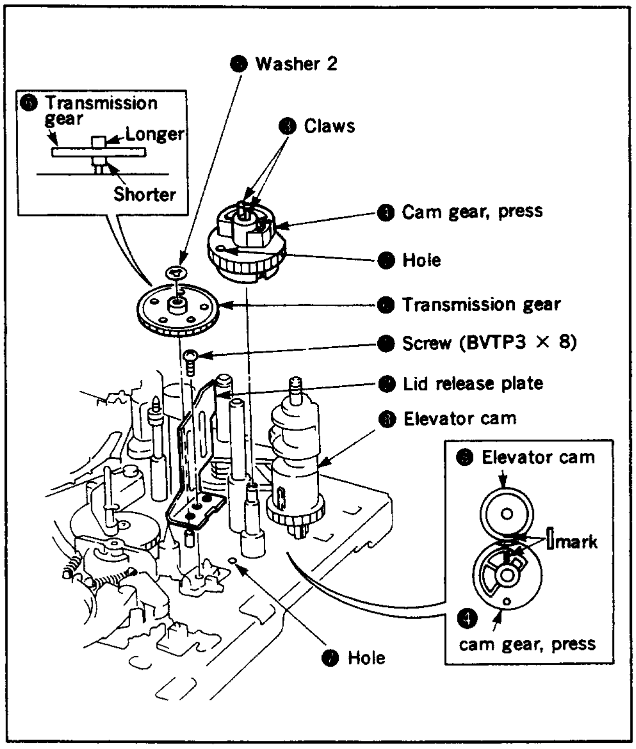

❺ Washer 2
❻ Transmission gear
Longer
Shorter
❸ Claws
❹ Cam gear, press
❼ Hole
❻ Transmission gear
❶ Screw (BVTP3 × 8)
❷ Lid release plate
❽ Elevator cam
❽ Elevator cam
▯mark
❹ cam gear, press
❼ Hole

Fig. 3-13.

3-8. RVS ARM ASS'Y AND RVS CAM GEAR (Fig. 3-14)

1) Remove the nylon nut M2 ❶ and plastic washer ❷.
2) Disengage the claw ❸, then pull out the RVS arm ass'y ❹.
3) Remove washer 2 ❺, then pull out the RVS cam gear ❻.

[Precautions on remounting]

- ○ The holes ❼ in the chassis and in the RVS cam gear ❻ must match up. Also, make sure to match up the holes ❾ on the cam gear, press ❽ and the chassis.
- ○ The spring ❿ must be hooked as shown in Fig. A below.
- ○ Clean the surface of the RVS arm ass'y ❹ where a tape is attached.
- ○ Apply 1/2 drop of lubricant to the shaft ⓫.

[Adjustment after replacement]

- ○ Perform tape path adjustments as described in 4-1.

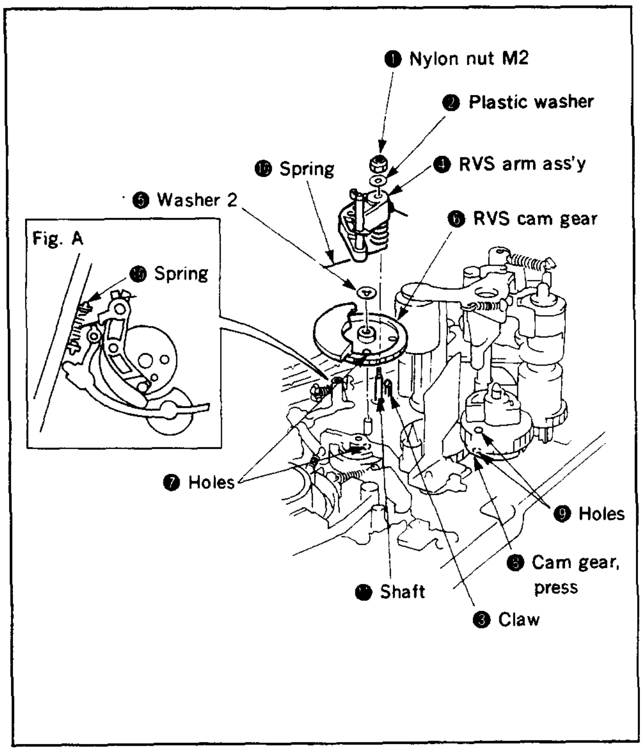

❶ Nylon nut M2
❷ Plastic washer
❿ Spring
❹ RVS arm ass'y
❺ Washer 2
❻ RVS cam gear
Fig. A
❿ Spring
❼ Holes
❾ Holes
❽ Cam gear, press
⓫ Shaft
❸ Claw

Fig. 3-14.

3-9. GUIDE No. 7 (Fig. 3-15)

1) Remove the nylon nut M3 ❶.
2) Pull out guide flange No. 7 ❷, guide sleeve No. 7 guide flange No. 7 ❹ and compression coil spring ❺ the given order.

[Precautions on remounting]

- ○ Clean the surface of the guide sleeve No. 7 ❸ where t tape is attached.
- ○ Adjust the height of guide No. 7 to the height shown Fig. A below.

[Adjustment after replacement]

- ○ Perform tape path adjustments as described in 4-1.

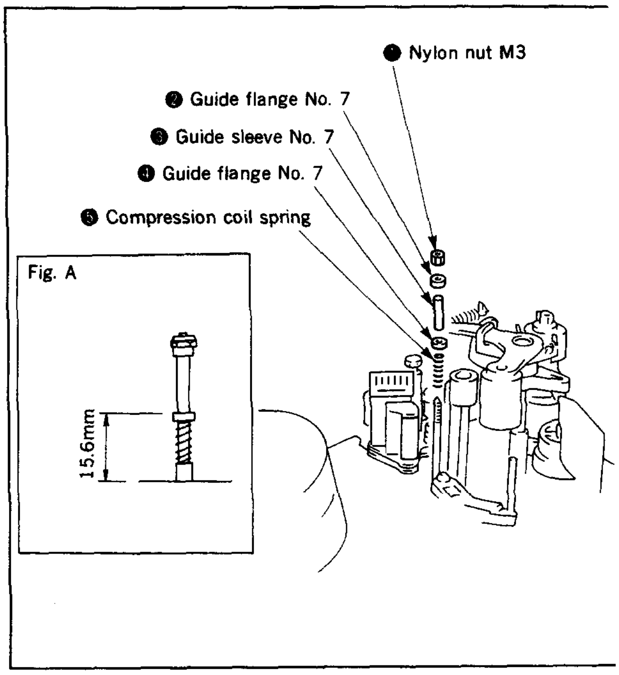

❶ Nylon nut M3
❷ Guide flange No. 7
❸ Guide sleeve No. 7
❹ Guide flange No. 7
❺ Compression coil spring
Fig. A
15.6mm

Fig. 3-15.

3-10. S-BRAKE ASS'Y, T-BRAKE ASS'Y (Fig. 3-16)

1) Remove the spring ❶.
2) Disengage the claw ❷, then pull out the S-brake ass'y ❸.
3) Disengage the claw ❹, then pull out the T-brake ass'y ❺.

[Precautions on remounting]

- ○ Do not touch the brake shoes for the respective S-brake ❸ and T-brake ❺ assy's directly with your fingers.
- ○ Do not hold on to the S-brake ❸ and T-brake ❺ assy's by the arms when inserting them.
- ○ The T-brake ass'y ❺ must be positioned above the S-brake ass'y ❸ as shown in Fig. A below.

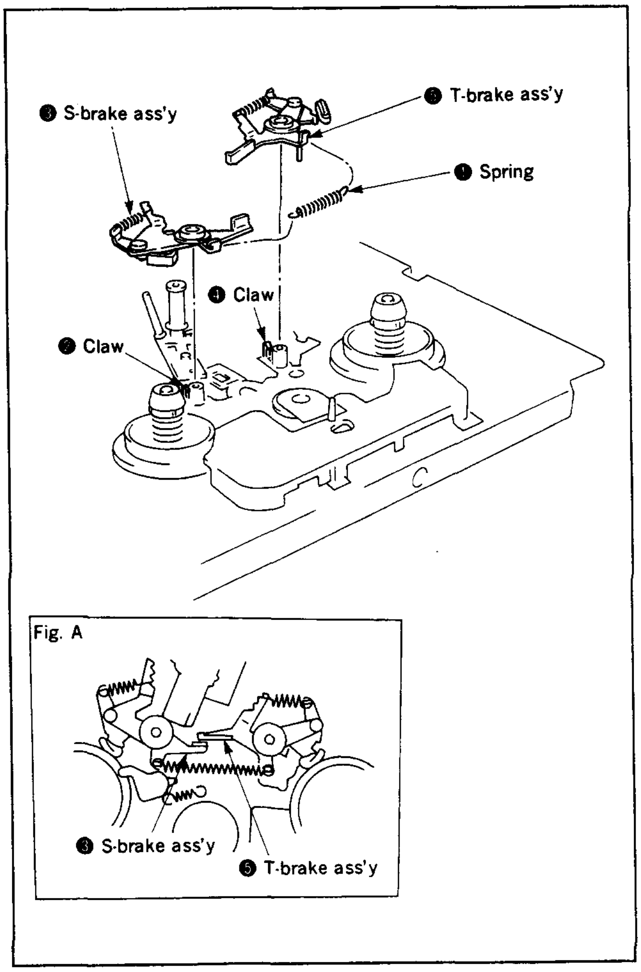

❸ S-brake ass'y
❺ T-brake ass'y
❶ Spring
❹ Claw
❷ Claw
Fig. A
❸ S-brake ass'y
❺ T-brake ass'y

Fig. 3-16.

3-11. T-SOFT BRAKE ASS'Y REV BRAKE ARM (Fig. 3-17)

1) Remove the end of the spring ❶ from the REV brake arm ❷.
2) Remove the end of the spring ❸ from the chassis.
3) Disengage the claw ❹, then pull out the T-soft brake ass'y ❺.
4) Disengage the claw ❻, then pull out the REV brake arm ❷.

[Precautions on remounting]

- ○ Do not touch the brake shoe of the T-soft brake ass'y ❺ directly with your fingers.

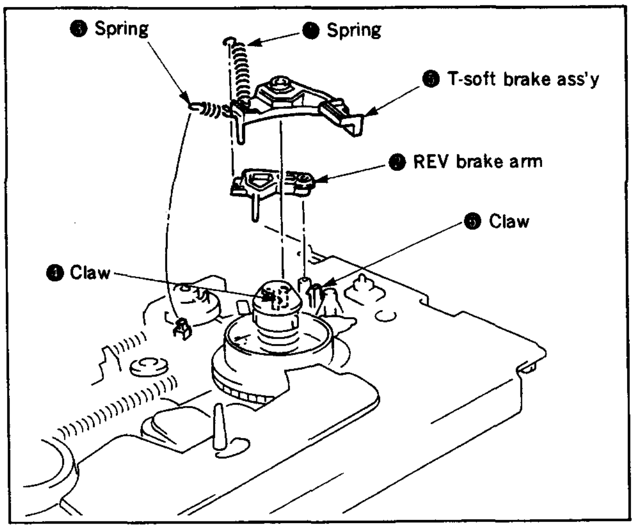

❸ Spring
❶ Spring
❺ T-soft brake ass'y
❷ REV brake arm
❻ Claw
❹ Claw

Fig. 3-17.

3-12. S-SOFT BRAKE ARM ASS'Y (Fig. 3-18)

1) Unhook the end of the spring ❶ from the chassis.
2) Disengage the claw ❷, then pull out the S-soft brake arm ass'y ❸.

[Precautions on remounting]

- ○ The S-soft brake arm ass'y must not clamp down the tension regulator band ass'y ❹ nor be positioned below the tension regulator band ❹.

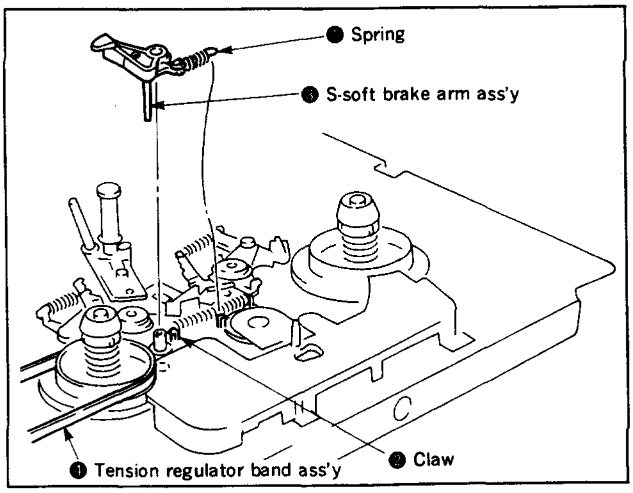

❶ Spring
❸ S-soft brake arm ass'y
❹ Tension regulator band ass'y
❷ Claw

Fig. 3-18.

3-13. S-GUIDE AND T-GUIDE ROLLER ASSY'S (Fig. 3-19)

1) Loosen the setscrew ❶, then remove the S-guide roller ass'y ❷ by turning it in the direction of the arrow Ⓐ.
2) Loosen the setscrew ❸, then remove the T-guide roller ass'y ❹ by turning it in the direction of arrow Ⓑ.

[Precautions on remounting]

○ Clean the surfaces of the S-guide roller ❷ and T-guide roller assy's ❹ where a tape is attached.

[Adjustment after replacement]

○ Perform tape path adjustments as described in 4-1.

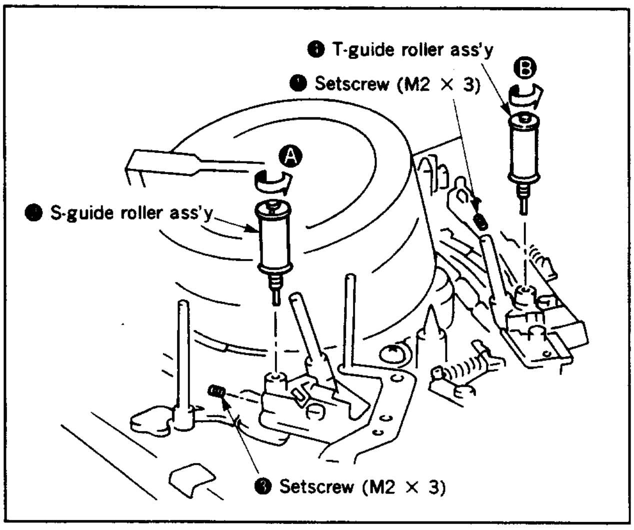

❹ T-guide roller ass'y
❸ Setscrew (M2 × 3)
Ⓑ
Ⓐ
❷ S-guide roller ass'y
❶ Setscrew (M2 × 3)

Fig. 3-19.

3-14. REEL LOCK RELEASE AND REW GEAR (Fig. 3-20)

1) Disengage the two claws ❶, then remove the reel lo release ❷ along with the spring ❸ (while the spring still attached).
2) Next, pull out the REW gear ❹ with the spring beari ❺ still attached).

[Precautions on remounting]

○ Make sure that the small thrust bearing ❻ remai attached.

○ Make sure that the two claws ❶ lock the real lock relea ❷ in place.

○ Apply 1/2 drop of lubricant to the shaft ❼.

○ Make sure that the spring ❸ adheres to the reel lo release ❷ and that it fits inside the rib of the REW ge ❹.

○ Mount the REW gear ❹ by meshing it with gear ❽.

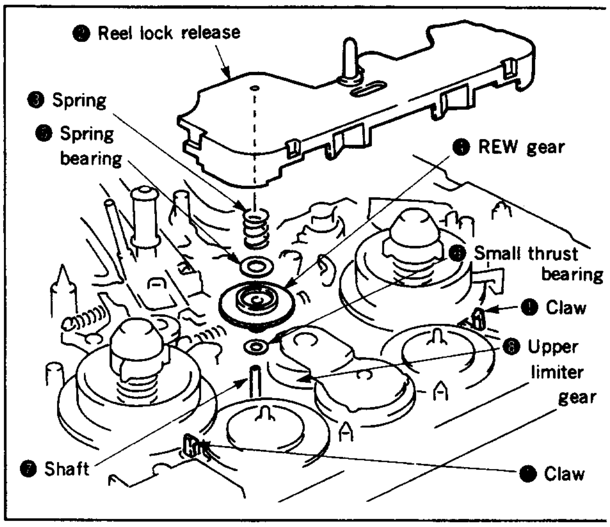

❷ Reel lock release
❸ Spring
❺ Spring bearing
❹ REW gear
❻ Small thrust bearing
❶ Claw
❽ Upper limiter gear
❼ Shaft
❶ Claw

Fig. 3-20.

3-15. TENSION REGULATOR ARM ASS'Y, TENSION REGULATOR BAND ASS'Y (Fig. 3-21)

1) Remove the reel lock release ass'y. (Refer to Fig. 3-14.)
2) Disengage the three claws marked ❶ and the claw marked ❷, then remove the tension regulator band ass'y ❸.
3) Unhook the end of the spring ❹ from the chassis.
4) Disengage the claw ❺, then pull out the tension regulator arm ass'y ❻.

[Precautions on remounting]

○ Roll up the tension regulator band ❸ on the S-reel by turning the S-soft brake arm ass'y ❼ in the direction of the arrow.
○ Hook the spring ❹ at the center of the spring hook ❽.
○ Do not touch the brake shoe of the tension regulator band ass'y ❸ directly with your fingers.
○ Mount the tension regulator arm ass'y ❻ at the position shown in Fig. A below.

[Adjustment after replacement]

○ Check the back tension. (Refer to 4-1-1.)
○ Perform tape path adjustments as described in 4-1.

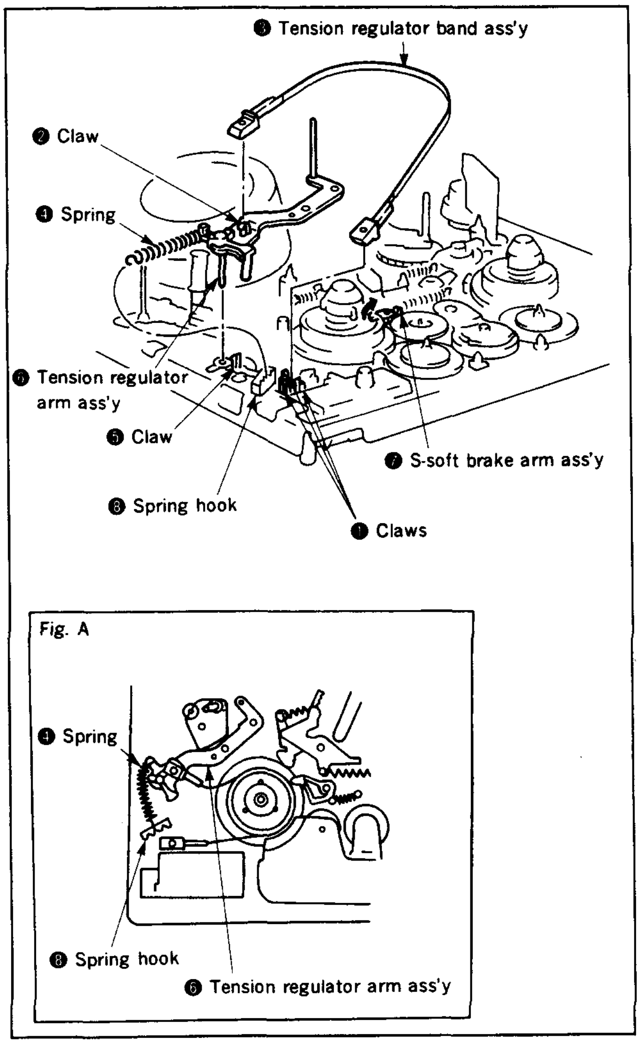

❸ Tension regulator band ass'y
❷ Claw
❹ Spring
❻ Tension regulator arm ass'y
❺ Claw
❽ Spring hook
❼ S-soft brake arm ass'y
❶ Claws
Fig. A
❹ Spring
❽ Spring hook
❻ Tension regulator arm ass'y

Fig. 3-21.

3-16. S TAKE-UP ASS'Y (Fig. 3-22)

1) Remove the tension regulator arm ass'y and the tension regulator band ass'y. (Refer to 3-15.)
2) Unhook the end of the spring ❶ from the S take-up arm ❷.
3) Disengage the two claws ❸, then remove the S take-up ass'y ❹.

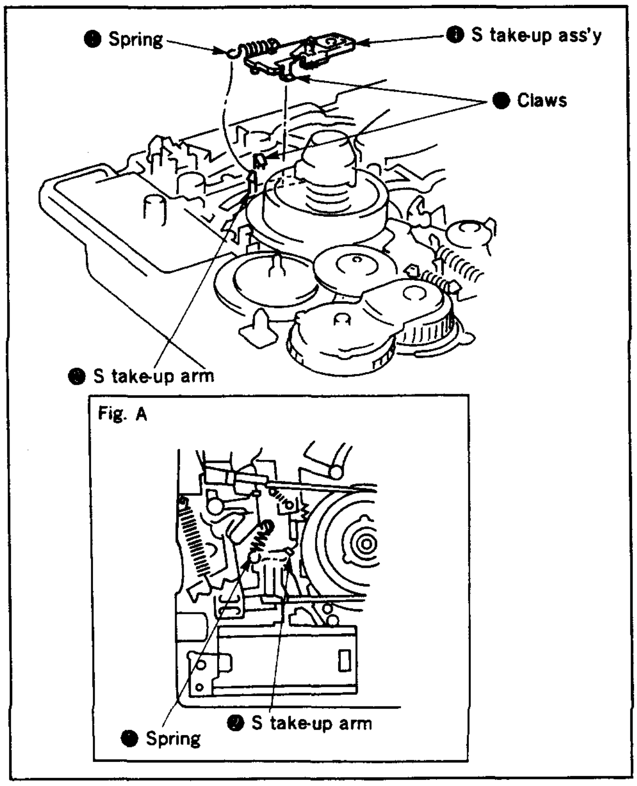

❶ Spring
❹ S take-up ass'y
❸ Claws
❷ S take-up arm
Fig. A
❶ Spring
❷ S take-up arm

Fig. 3-22.

3-17. S-REEL ASS'Y (Fig. 3-23)

1) Remove the S-soft brake arm ass'y. (Refer to 3-12.)
2) Remove the reel lock release. (Refer to 3-14.)
3) Remove the tension regulator band ass'y. (Refer to 3-15.)
4) Turn the S-brake ass'y ❶ in the direction of the arrow.
5) Pull out the S-reel ass'y ❷.

[Precautions on remounting]

○ At least one reel stand thrust bearing ❸ must be attached (but not more than two).
○ Do not touch the outer edge of the S-reel ass'y ❷ directly with your fingers.
○ Apply 1/2 drop of lubricant over the shaft ❹.
○ Mount the S-reel ass'y ❷ while meshing it with the relay gear ❺.

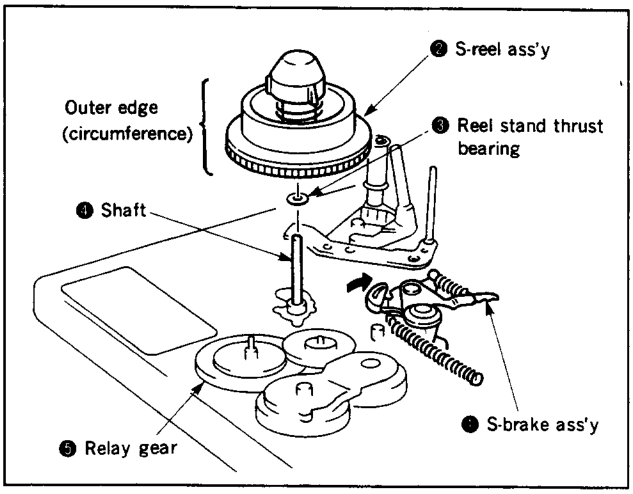

❷ S-reel ass'y
Outer edge (circumference)
❸ Reel stand thrust bearing
❹ Shaft
❶ S-brake ass'y
❺ Relay gear

Fig. 3-23.

3-18. T-REEL ASS'Y (Fig. 3-24)

1) Remove the T-soft brake ass'y. (Refer to 3-11.)
2) Remove the reel lock release ass'y. (Refer to 3-14.)
3) Turn the T-brake ass'y ❶ in the direction of the arrow.
4) Pull out the T-reel ass'y ❷.

[Precautions on remounting]

○ At least one reel stand thrust bearing ❸ must be attached (but not more than two).
○ Do not touch the outer edge of the T-reel ass'y ❷ directly with your fingers.
○ Apply 1/2 drop of lubricant on the shaft ❹.
○ Mount the T-reel ass'y ❷ while meshing it with the relay gear ❺.

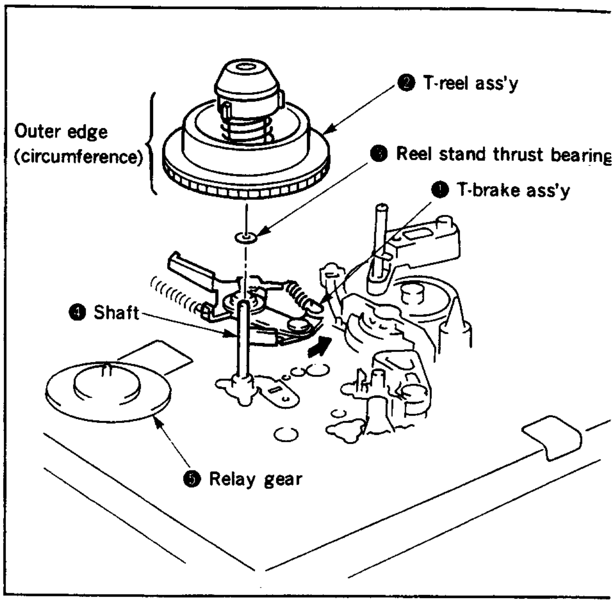

❷ T-reel ass'y
Outer edge (circumference)
❸ Reel stand thrust bearing
❶ T-brake ass'y
❹ Shaft
❺ Relay gear

Fig. 3-24.

3-19. PENDULUM ARM ASS'Y (Fig. 3-25)

1) Remove the reel lock release ass'y. (Refer to 3-14.)
2) Remove the washer 2 ❶, then pull out the pendulum ar ass'y ❷.

[Precautions on remounting]

○ Fit the boss on the pendulum cap ❸ into the gap in t pendulum slide plate ❹.
○ The plastic slider ❺ must be attzched.
○ Apply 1/2 drop of lubricant on the shaft ❻.
○ Mount the pendulum arm ass'y ❷ by meshing it with t upper limiter gear ❼.

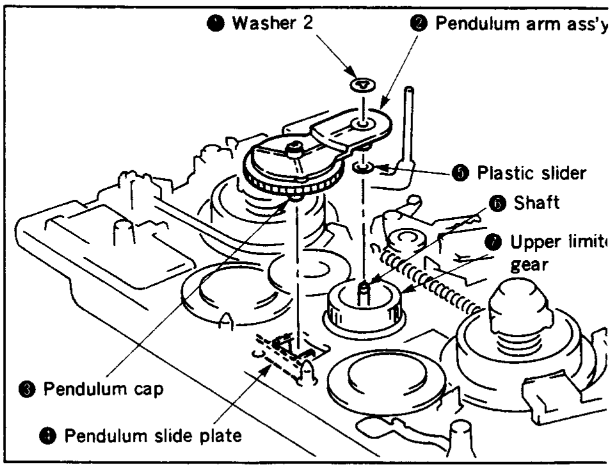

❶ Washer 2
❷ Pendulum arm ass'y
❺ Plastic slider
❻ Shaft
❼ Upper limit
gear
❸ Pendulum cap
❹ Pendulum slide plate

Fig. 3-25.

3-20. RELAY GEAR (Fig. 3-26)

1) Remove the reel lock release and REW gear. (Refer to 3-14.)
2) Remove the S-reel ass'y. (Refer to 3-17.)
3) Remove the T-reel ass'y. (Refer to 3-18).
4) Pull out the two relay gears ❶.

[Precautions on remounting]

- ○ The relay gears ❶ must rotate smoothly after remounting.
- ○ Apply 1/2 drop of lubricant to the respective shafts ❷.

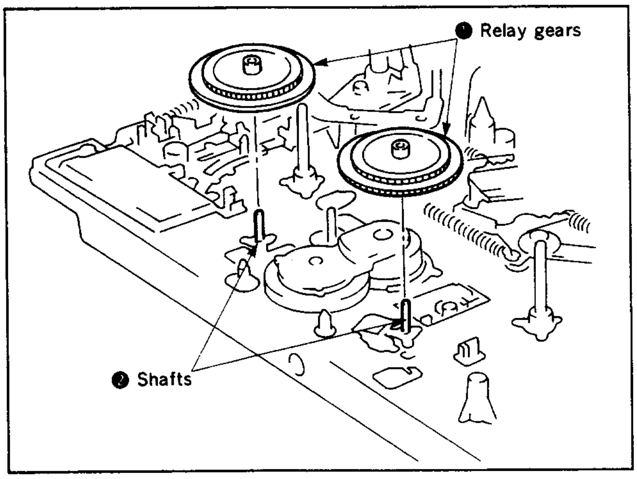

❶ Relay gears
❷ Shafts

Fig. 3-26.

3-21. ADJUSTER ARM ASS'Y (Fig. 3-27)

1) Remove screw ❶.
2) Remove washer ❻.
3) Remove the end of the spring ❷ hooked to the chassis.
4) Remove the end of the timing belt ❸ from the capstan motor arm ass'y.
5) Disengage the claw ❹, then remove the adjuster arm ass'y.

[Precautions on remounting]

- ○ First mount the adjuster arm ass'y ❺, timing belt ❸ and spring ❷, then attach the washer ❻ and fasten the screw ❶.
- ○ The screw fastening torque must be within 5kg•cm (±1kg•cm).

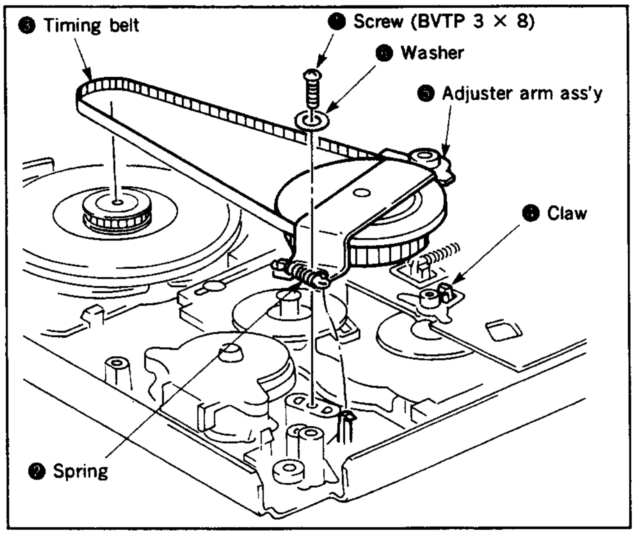

❸ Timing belt
❶ Screw (BVTP 3 × 8)
❻ Washer
❺ Adjuster arm ass'y
❹ Claw
❷ Spring

Fig. 3-27.

3-22. CAP BRAKE ASS'Y (Fig. 3-28)

1) Loosen the screw ❶, then push the timing belt ❷ in the direction of the arrow.
2) Unhook the end of the spring ❸ from the chassis.
3) Disengage claw ❹, then pull out CAP brake ass'y ❺.

[Precautions on remounting]

- ○ Do not touch the brake shoe of the CAP brake ass'y ❺ directly with your fingers.

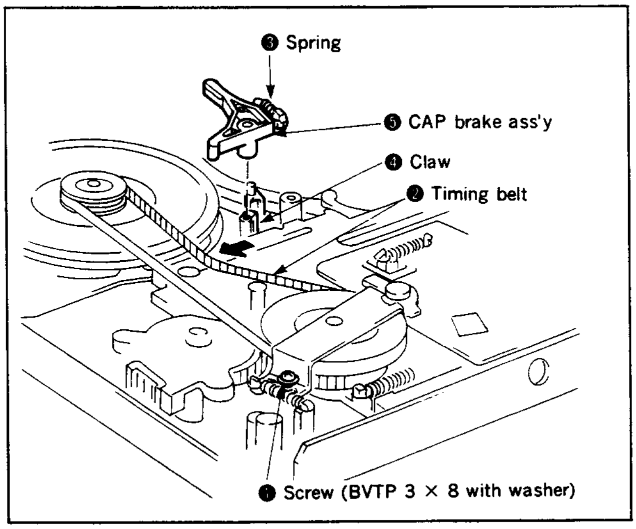

❸ Spring
❺ CAP brake ass'y
❹ Claw
❷ Timing belt
❶ Screw (BVTP 3 × 8 with washer)

Fig. 3-28.

3-23. CAPSTAN MOTOR (Fig. 3-29)

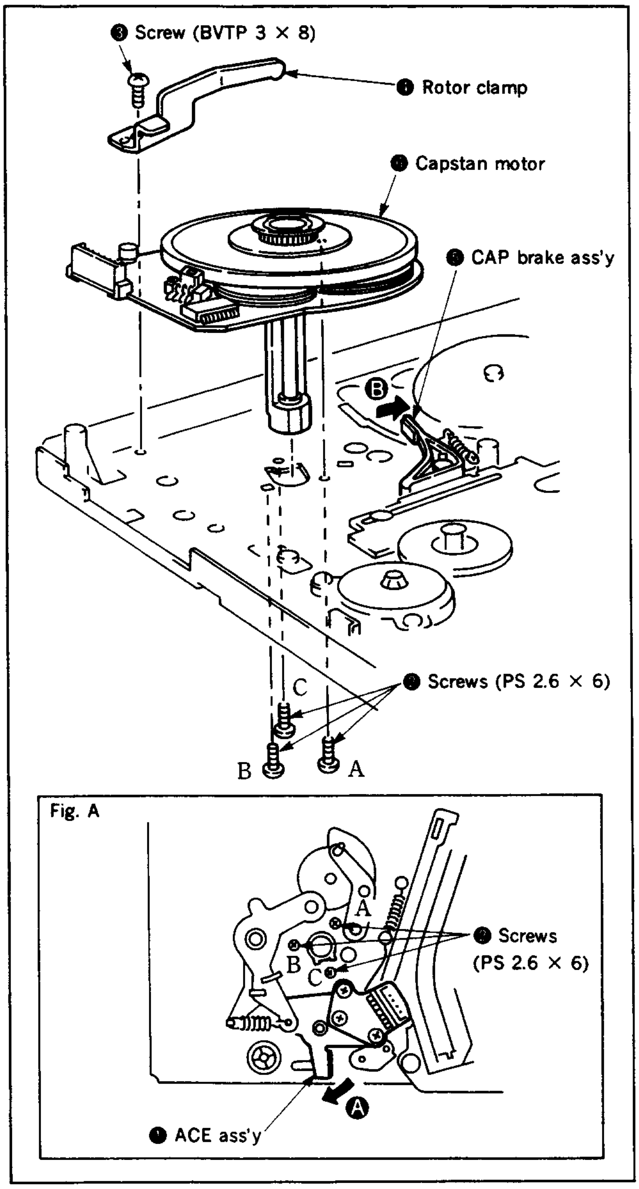
1) Turn the ACE ass'y ❶ in the direction of arrow Ⓐ as shown in Fig. A below, then remove three screws ❷.
2) Remove screw ❸, then remove the rotor clamp ❹.
3) Turn the CAP brake ass'y ❺ in the direction of arrow Ⓑ, then pull out the capstan motor ❻.

[Precautions on remounting]

- ○ Clean the section of the capstan motor ❻ where the tape is attached.
- ○ Do not touch the brake shoe of the CAP brake ass'y ❺ directly with your fingers.
- ○ Of the three screws ❷, first fasten screw A temporarily, then fasten screws B and C firmly, followed by screw A.
- ○ The screw fastening torque must be within 3kg•cm ± 1kg•cm.

[Adjustments after mounting]

- ○ Perform tape path adjustments as described in 4-1.



❸ Screw (BVTP 3 × 8)
❹ Rotor clamp
❻ Capstan motor
❺ CAP brake ass'y
Ⓑ
Screws (PS 2.6 × 6)
C
B
A
Fig. A
A
B
C
❷ Screws (PS 2.6 × 6)
Ⓐ
❶ ACE ass'y

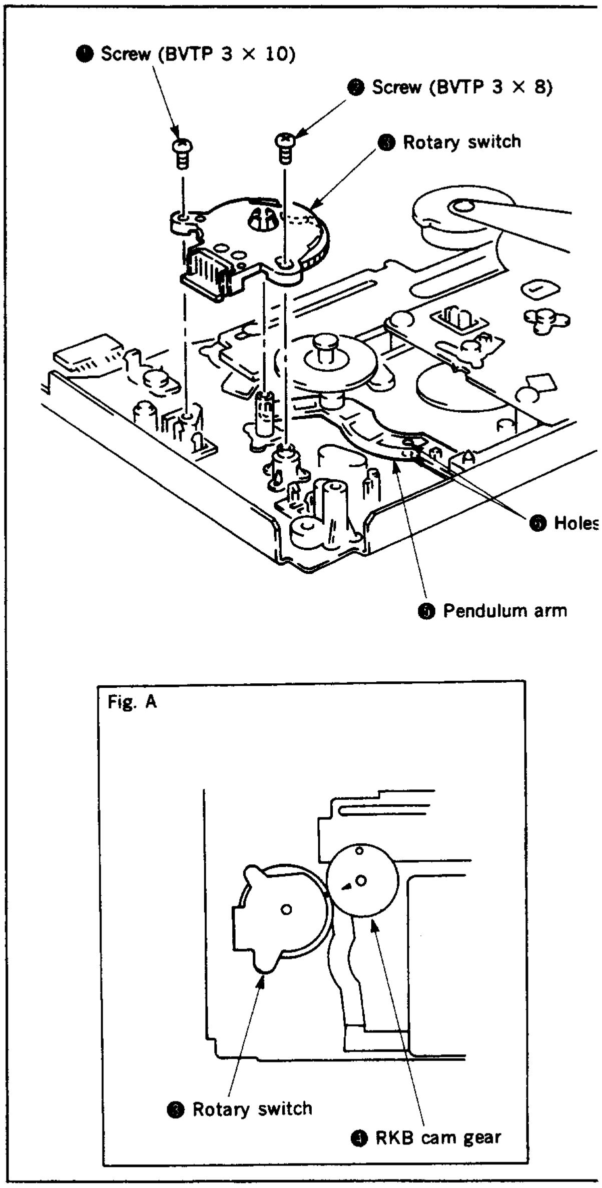
Fig. 3-29.

3-24. ROTARY SWITCH (Fig. 3-30)

1) Remove the adjuster arm ass'y. (Refer to 3-21.)
2) Remove the screws ❶ and ❷, then pull out the rot switch ❸.

[Precautions on remounting]

- ○ Match up the ● mark on the rotary switch ❸ with the mark on the RKB cam gear ❹ as shown in Fig. A.
- ○ Match up holes ❺ on the pendulum arm ❻ and the chas



❶ Screw (BVTP 3 × 10)
❷ Screw (BVTP 3 × 8)
❸ Rotary switch
❺ Holes
❻ Pendulum arm
Fig. A
❸ Rotary switch
❹ RKB cam gear

Fig. 3-30.

3-25. RKB CAM GEAR (Fig. 3-31)

1) Remove the adjuster arm ass'y. (Refer to 3-22.)
2) Remove washer 2 ❶, then pull out the RKB cam gear ❷.

[Precautions on remounting]

- ○ When the limiter arm ❸ is pushed in the direction of the arrow, the pin must fit into the notch on the RKB cam gear ❷.
- ○ The ■ mark on rotary switch ❺ must match up with the ◀ mark on the RKB cam gear ❷ as shown in Fig. A.
- ○ Apply 1/2 drop of lubricant to shaft ❻.
- ○ Match up the holes ❹ on the RKB cam gear ❷ and the mode slide plate.

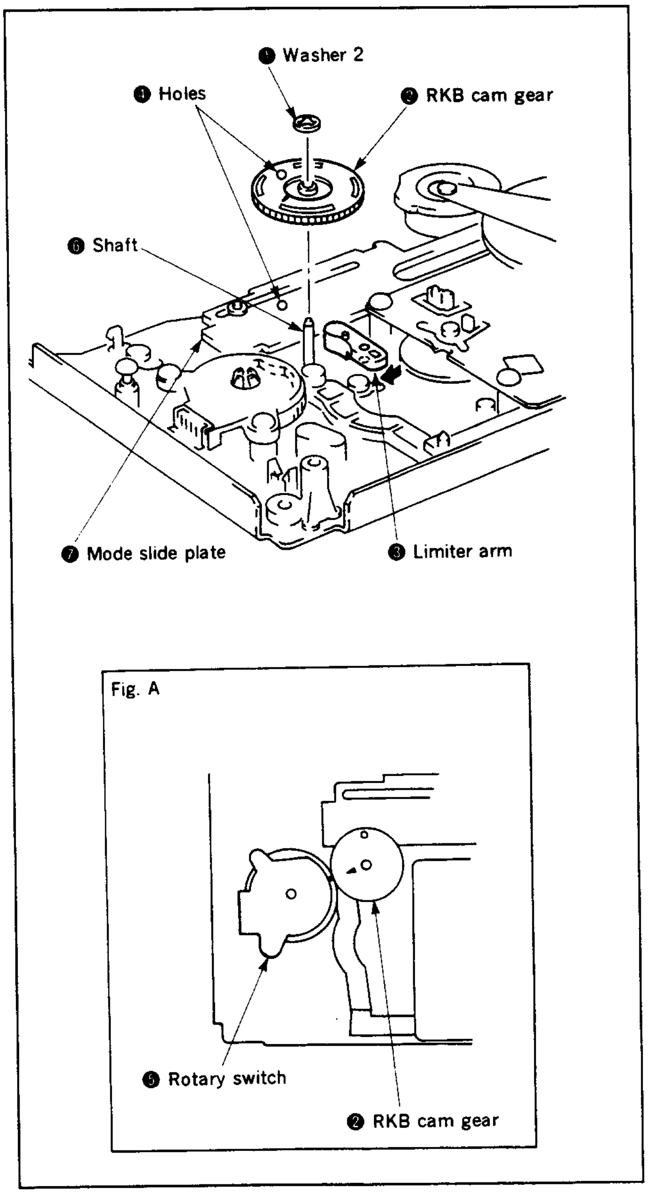

❶ Washer 2
❹ Holes
❷ RKB cam gear
❻ Shaft
❼ Mode slide plate
❸ Limiter arm
Fig. A
❺ Rotary switch
❷ RKB cam gear

Fig. 3-31.

3-26. SUB-CHASSIS ASS'Y (Fig. 3-32)

1) Remove the reel lock release arm and REW gear. (Refer to 3-15.)
2) Remove the pendulum arm ass'y. (Refer to 3-19.)
3) Remove the adjuster arm ass'y. (Refer to 3-22.)
4) Remove the three screws ❶, then remove sub-chassis ass'y ❷.

[Precautions on remounting]

- ○ The switching arm ❸ must be switched in the direction of the arrow.
- ○ The screws must be fastened in order of a, b and c.
- ○ Mount the sub-chassis carefully so as not to damage the gear.
- ○ The corner edge of the lug terminal ❹ must fit into the gap between the chassis ass'y ❷ and mechanism chassis.

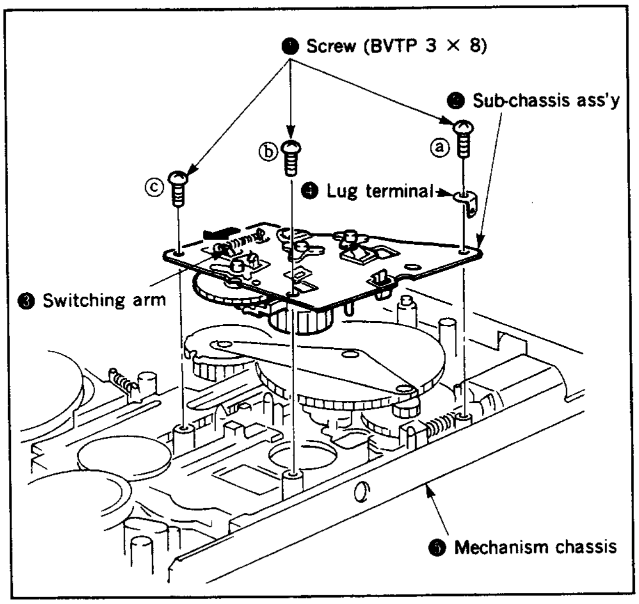

❶ Screw (BVTP 3 × 8)
❷ Sub-chassis ass'y
ⓑ
ⓐ
ⓒ
❹ Lug terminal
❸ Switching arm
❺ Mechanism chassis

Fig. 3-32.

3-27. PENDULUM SLIDE PLATE, PENDULUM ARM (Fig. 3-33)

1) Remove the rotary switch. (Refer to 3-24.)
2) Remove the RKB cam gear. (Refer to 3-25.)
3) Remove the sub-chassis ass'y. (Refer to 3-26.)
4) Disengage the two claws ❶, then pull out the pendulum slide plate ❷.
5) Unhook the spring ❸.
6) Disengage the claw ❹, then pull out pendulum arm ❺.

[Precautions on remounting]

○ The shaft ❻ must fit into hole ❼.

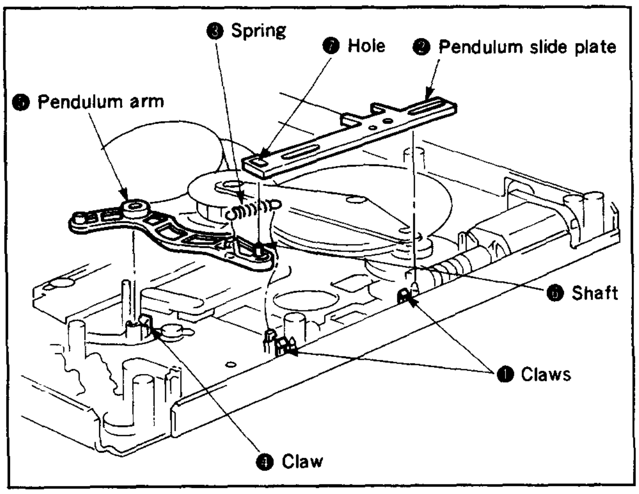

❸ Spring
❼ Hole
❷ Pendulum slide plate
❺ Pendulum arm
❻ Shaft
❶ Claws
❹ Claw

Fig. 3-33.

3-28. THE LIMITER ARM AND LIMITER SLIDE PLATE (Fig, 3-24)

1) Remove the RKB cam gear. (Refer to 3-25.)
2) Remove the sub-chassis. (Refer to Fig. 3-26.)
3) Disengage the claw ❶, then pull out the limiter arm ❷.
4) Disengage the two claws ❸, then pull out the limiter slide plate ❹.

[Precautions on remounting]

○ The shaft ❺ must fit into the hole ❻.

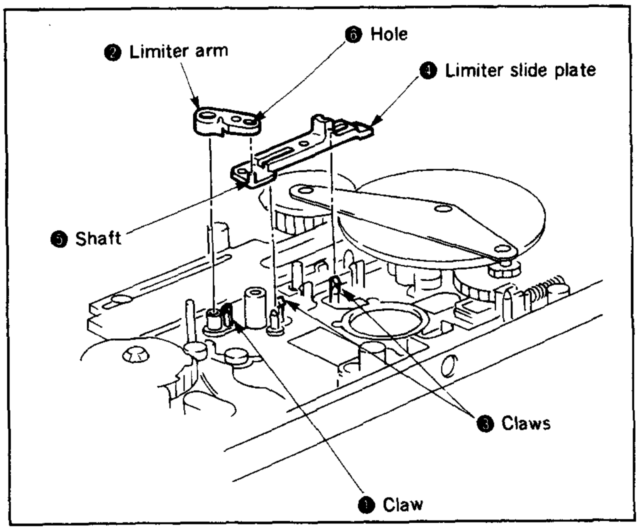

❻ Hole
❷ Limiter arm
❹ Limiter slide plate
❺ Shaft
❸ Claws
❶ Claw

Fig. 3-34.

3-29. CAM MOTOR (Fig. 3-35)

1) Remove the sub- chassis ass'y. (Refer to 3-26.)
2) Disengage the six claws ❶, then remove the cam mc ❷ and worm gear ❸.

[Precautions on remounting]

○ Check the meshing of cam motor ❷ and worm gear

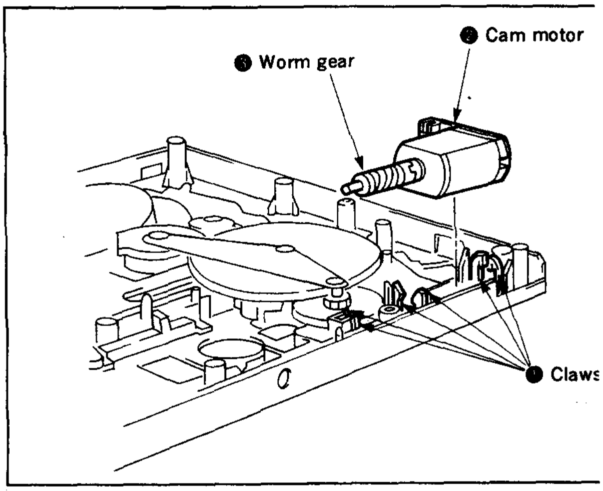

❷ Cam motor
❸ Worm gear
❶ Claws

Fig. 3-35.

3-30. CAM GEAR (Fig. 3-36)

1) Remove the three washers 2 ❶, then pull out the c gear holder ❷.
2) Pull out the cam gear ❸.

[Precautions on remounting]

○ Match up the right loading gear ass'y, the tension reg tor arm, the S take-up arm, the work wheel, the brake and the mode slide plate with respective holes ❹ to ❾ the chassis in that order.

○ Match up the hole ❿ on the mode slide plate with the h ❿ in cam gear ❸.

○ Apply 1/2 drop of lubricant to the shaft ⓫.

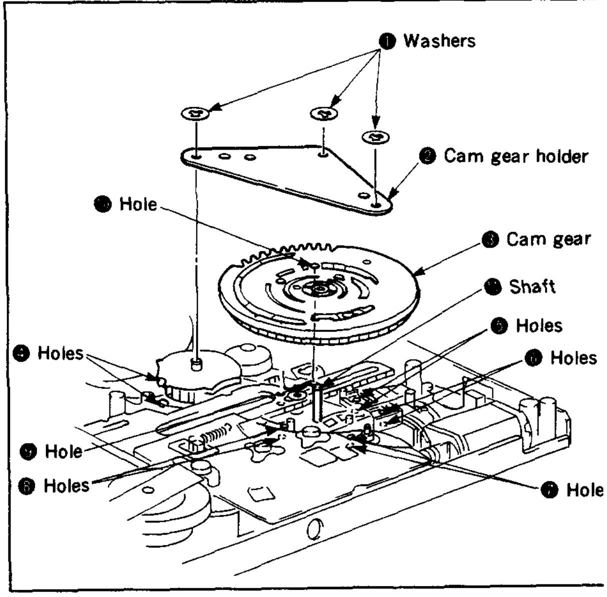

❶ Washers
❷ Cam gear holder
❿ Hole
❸ Cam gear
⓫ Shaft
❺ Holes
❹ Holes
❻ Holes
❾ Hole
❽ Holes
❼ Hole

Fig. 3-36.

3-31. TENSION REGULATOR ARM, S TAKE-UP ARM (Fig. 3-37)

1) Remove the cam gear. (Refer to 3-30)
2) Disengage the claw ❶, then remove the tension regulator arm ❷.
3) Remove the end of the spring ❸ from the S take-up arm ❹.
4) Disengage the claw ❺, then pull out S take-up arm ❹.

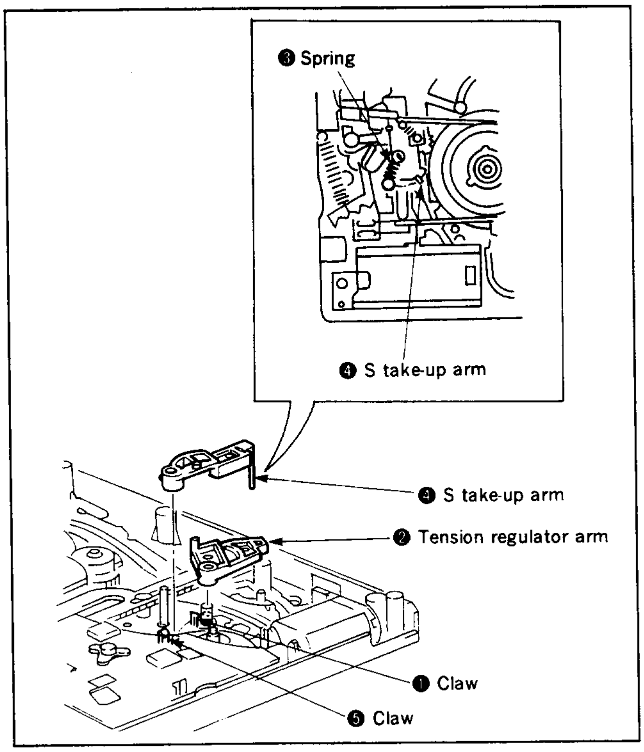

❸ Spring
❹ S take-up arm
❹ S take-up arm
❷ Tension regulator arm
❶ Claw
❺ Claw

Fig. 3-37.

3-32. MODE SLIDE PLATE, RVS RELAY GEAR (Fig. 3-38)

1) Remove the RKB cam gear. (Refer to 3-25.)
2) Remove the cam gear. (Refer to 3-30.)
3) Remove the two washers 2 ❶.
4) Turn the CAP brake ❷ in the direction of the arrow, then pull out mode slide plate ❸.
5) Pull out the RVS relay gear ❹.

[Precautions on remounting]

- ○ Match up the hole ❺ on the RVS relay gear ❹ with hole ❺ in the chassis.
- ○ Match up the holes ❻ on the mode slide plate ❸ with holes ❻ in the chassis.
- ○ Apply 1/2 drop of lubricant to the shaft ❼.

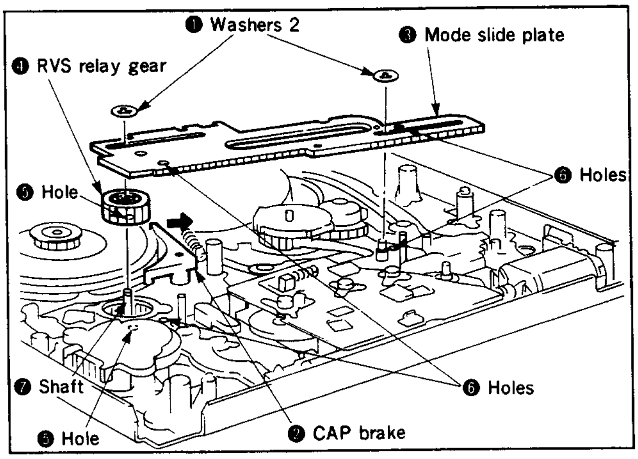

❶ Washers 2
❸ Mode slide plate
❹ RVS relay gear
❻ Holes
❺ Hole
❼ Shaft
❻ Holes
❺ Hole
❷ CAP brake

Fig. 3-38.

3-33. BRAKE ARM, BRAKE SLIDE PLATE (Fig. 3-39)

1) Remove the sub-chassis. (Refer to 3-26.)
2) Remove the cam gear. (Refer to 3-30.)
3) Disengage the claw ❶, then pull out the brake arm ❷.
4) Disengage the two claws ❸, then pull out the brake slide plate ❹.

[Precautions on remounting]

- ○ Insert the shaft ❺ into hole ❻.

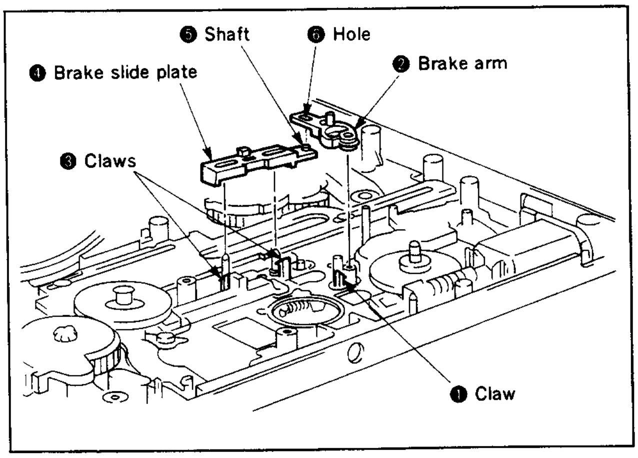

❺ Shaft
❻ Hole
❹ Brake slide plate
❷ Brake arm
❸ Claws
❶ Claw

Fig. 3-39.

3-34. RIGHT SHUTTLE, RIGHT LOADING GEAR ASSY'S (Fig. 3-40)

1) Remove the mode slide plate. (Refer to 3-32.)
2) Remove the plastic slider ❶, then pull out the right shuttle ass'y ❷.
3) Pull out the right loading gear ass'y ❸.

[Precautions on remounting]

- ○ Match up the ▲ mark on the right loading gear ass'y ❸ with the ▲ mark on the left loading gear ass'y ❹ as shown in Fig. A below.
- ○ Apply 1/2 drop of lubricant to the shaft ❺.
- ○ Do not hold on to the arm when pressing on the right loading gear ❸.
- ○ Clean the section of the right shuttle ass'y ❷ where the tape is attached.

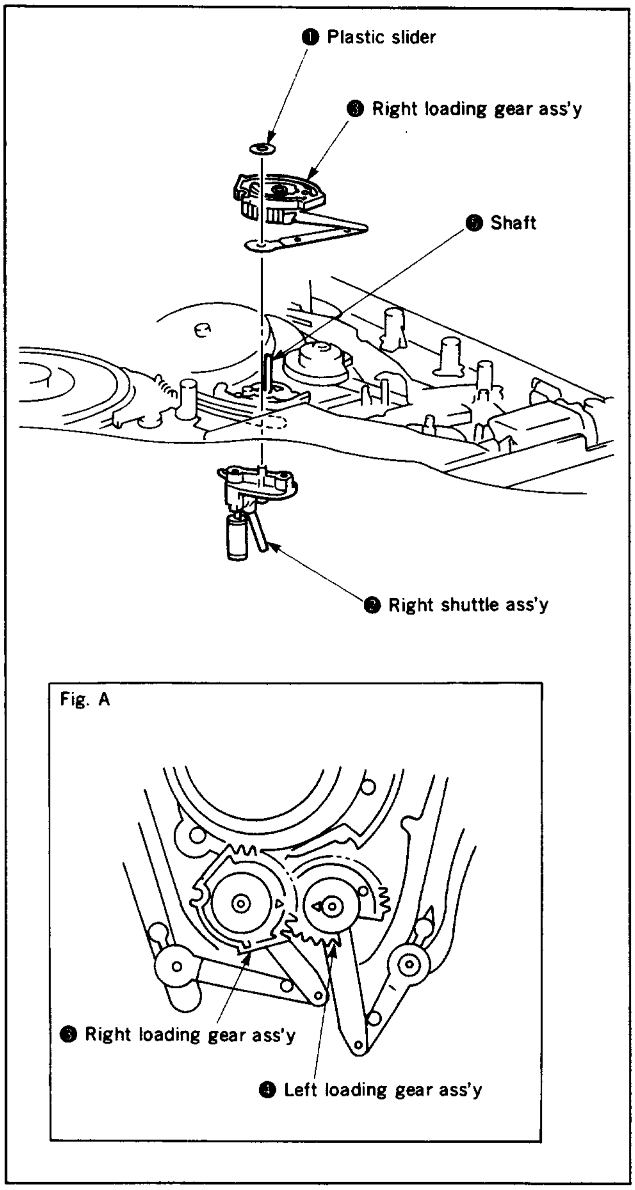

❶ Plastic slider
❸ Right loading gear ass'y
❺ Shaft
❷ Right shuttle ass'y
Fig. A
❸ Right loading gear ass'y
❹ Left loading gear ass'y

Fig. 3-40.

3-35. LEFT SHUTTLE ASS'Y, LEFT LOADING GEAR ASS'Y (Fig. 3-41)

1) Remove the right shuttle ass'y and right loading ge ass'y. (Refer to 3-34.)
2) Remove the plastic slider ❶, then pull out the left shut ass'y ❷.
3) Remove washer 2 ❸, then pull out the left loading ge ass'y ❹.

[Precautions on remounting]

- ○ Apply 1/2 drop of lubricant to shaft ❺.
- ○ The tension regulator arm ass'y ❻ and left shuttle ass'y must be positioned as shown in Fig. A below.
- ○ Do not hold on to the arm of the left loading gear ass'y when the left loading gear ass'y ❹ is pressed.
- ○ Clean the section of the felt shuttle ass'y ❷ where the ta is attached.

[Adjustments after replacement]

- ○ Perform tape path adjustments as described in 4-1.

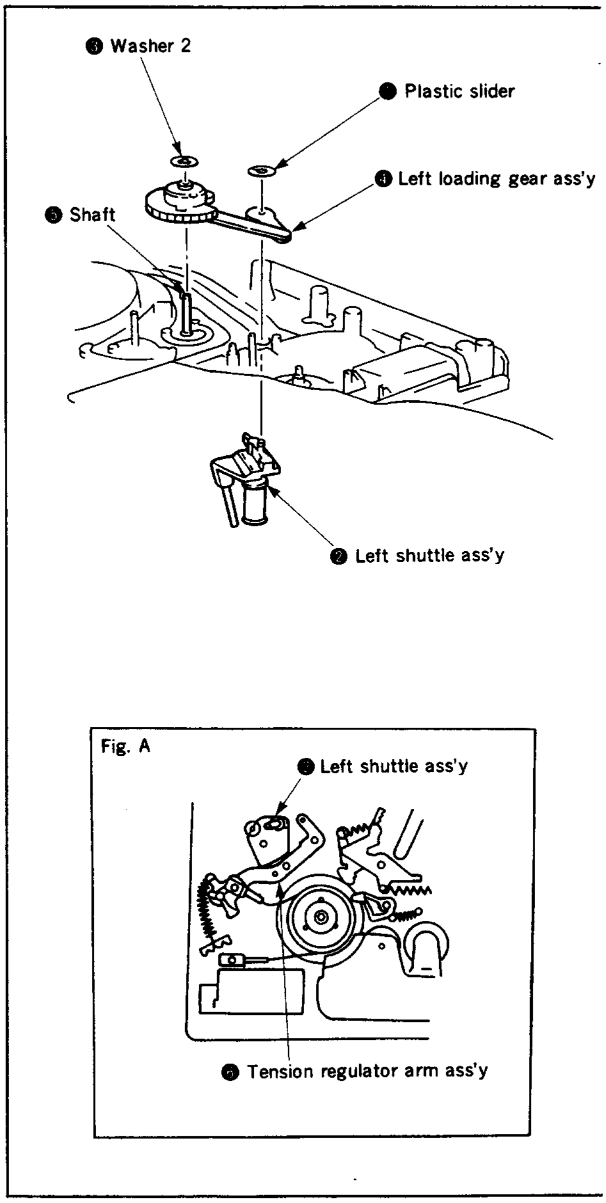

❸ Washer 2
❶ Plastic slider
❹ Left loading gear ass'y
❺ Shaft
❷ Left shuttle ass'y
Fig. A
❷ Left shuttle ass'y
❻ Tension regulator arm ass'y

Fig. 3-41.

3-36. C-ROLLER ARM ASS'Y, C-ROLLER RELEASE LEVER (Fig. 3-42)

1) Disengage the claw ❶, then pull out the C-roller arm ass'y ❷.
2) Unhook the end of the spring ❸ from the chassis.
3) Disengage the two claws ❹, then pull out the C-roller release lever ❺.

[Precautions on remounting]

- Mount C-roller arm ass'y ❷ so that the hole ❻ on the C-roller arm ass'y ❷ fits into the boss ❼ on the C-roller release lever ❺.

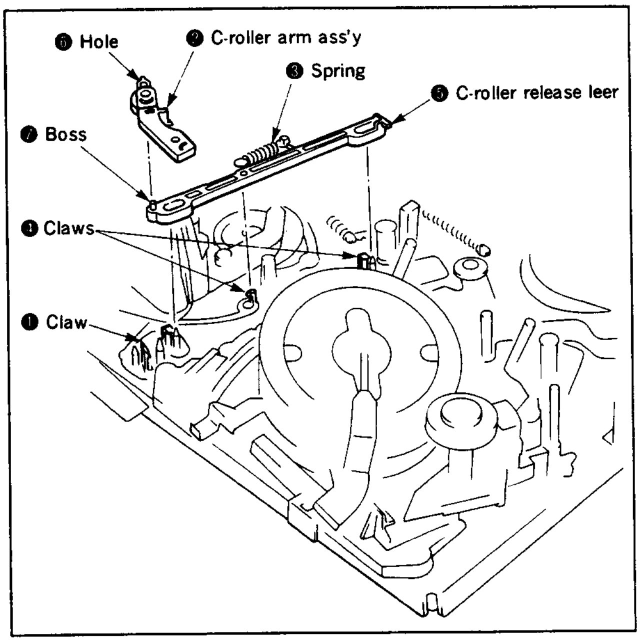

❻ Hole
❷ C-roller arm ass'y
❸ Spring
❺ C-roller release leer
❼ Boss
❹ Claws
❶ Claw

Fig. 3-42.

4. ADJUSTMENT

4-1. TAPE PATH ADJUSTMENT

The "Tape path" refers to the route of the tape from the supply reel disk to the take-up reel disc via the video heads. Each component part of the tape transport system, particularly the surface of parts which make direct contact with the tape must always be kept clean, free of dust, oil, scratches and so forth.

The tape path system is factory preadjusted. when parts of the tape transport system are replaced, be sure to make the required adjustments as precisely as possible in order to ensure stable tape transport.

4-1-1. Tension regulator position/tension adjustment (Fig. 4-1.)

Purpose : Stabilizes contact of the video head and the tape to maintain the tension of the tape so that it feeds at a constant level.

- **Position adjustment**

Mode	Threading is completed without a cassette loaded. (Refer to section 1-2.)
Adjustment locations	Tension band holder

[Adjustment method]

1) Allow the unit to go through the threading procedure without a cassette loaded.
2) Set the VTR unit to playback, then turn the tension band adjuster lever so that the gap between guide No. 0 and tension arm is within 4.5±0.4mm. *(Set the unit to playback without a cassette loaded.)
3) After adjustment, go through the loading procedure once more without a cassette loaded, then check the position of the tension arm.

- **Tension adjustment**

Mode	Playback
Measuring instrument/tool	Torque cassette
Adjustment locations	Position for hooking the tension sprin
Specification	28 to 34 g•cm

[Adjustment method]

1) Playback the torque cassette.
2) Check that the center value deviation reading on torque cassette meets with the standards.
3) When the reading is higher than the standards: M the spring toward direction Ⓐ.
When the reading is less than the standards: Move spring toward direction Ⓑ.

Note : Move the spring to the tension spring hook posit and recheck the tension arm position. If the position is misaligned, adjust the position and tens of the tension arm.

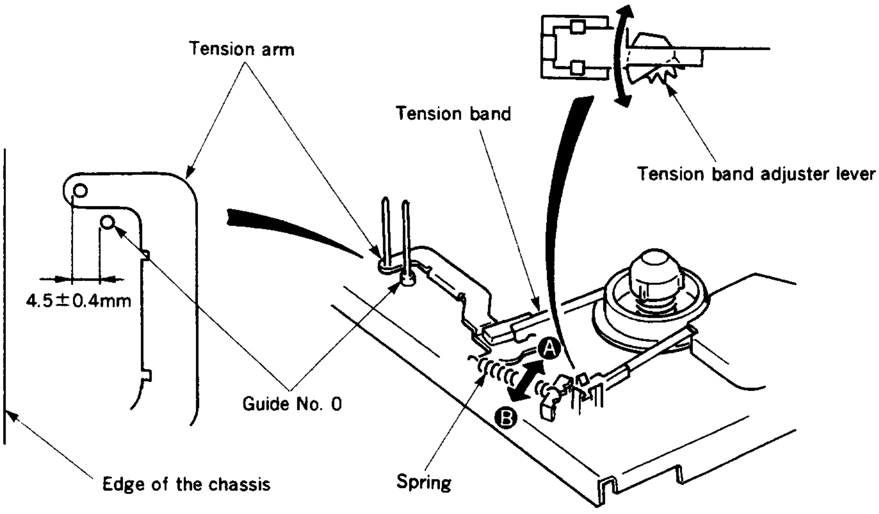


Fig. 4-1.

4-1-2. Height adjustment of the guide roller No. 2 (Fig. 4-2)

Mode	Playback
Tool	Blank tape
Adjustment locations	Guide roller height adjuster screw

[Adjustment method]

1) Load a new tape in the unit, then play it back.
2) Make sure that the lower flange of guide roller No. 2 does not curl up.
3) When the tape curls up: Turn the guide roller adjuster screw clockwise.
   When the tape does not fit into the lower flange: Turn the guide roller adjuster screw counter-clockwise.
4) After the above check, separate the tension arm from the tape, then re-attach it slowly. At this time, check if the tape curls up at the lower flange of the guide roller No. 2 and if the curl disappears within 2 seconds.
5) If curl does not disappear in two seconds: Turn the adjuster screw clockwise.
   If the tape does not curl up: Turn the adjuster screw counter-clockwise.

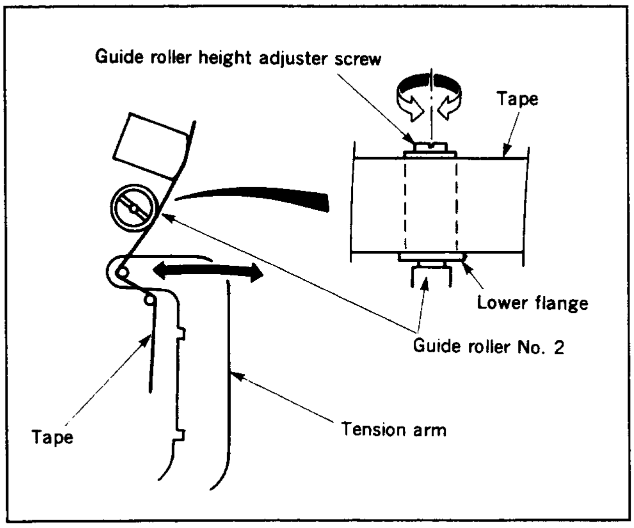


Fig. 4-2.

4-1-3. Height adjustment of guide roller No. 7 and the RVS arm (Fig. 4-3.)

Mode	Playback
Tool	Blank tape
Adjustment locations	Height adjuster nut

[Adjustment method]

1) Load the tape into the VTR and play it back, then adjust the height of the guide roller No. 7 so that the tape runs along the lower flange of guide roller No. 7.
2) If the guide roller is too low: Turn the height adjuster nut counter-clockwise.
   If the guide roller is too high: Turn the height adjuster nut clockwise.
3) Run the tape in REV, then adjust the height of the RVS arm so that the tape runs along guide roller No. 7.
4) If the tape gets caught in the upper flange of guide roller No. 7: Turn the RVS arm height adjuster nut clockwise.
5) If the tape catches on the lower flange of guide roller No. 7 : Turn the RVS arm height adjuster nut counter-clockwise.

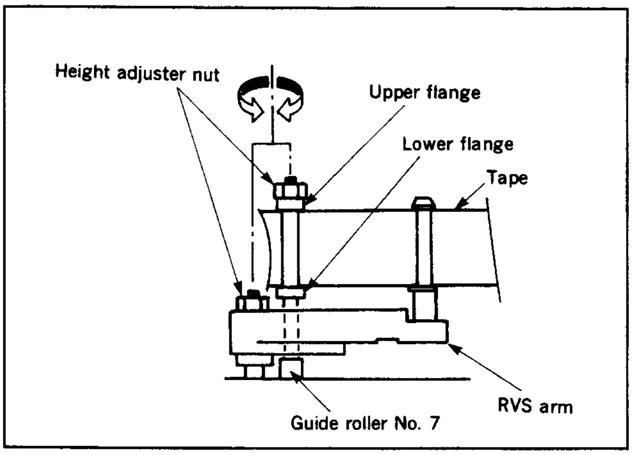


Fig. 4-3.

4-1-4. Height adjustment of guide rollers No. 3 and No. 6 (Fig. 4-4)

Mode	Playback
Signal	Hi-Fi alignment tape (Hi-Fi 400Hz)
Measuring instrument	Oscilloscope
Measuring point	CH-1 : Connector PB RF pin for RF PC board check. CH-2 : Connector RF SW P pin for RF PC board check.
Adjustment locations	Guide roller height adjuster screw.

[Adjustment method]

1) Tracking (playback): Turn off the auto tracking, then press the tracking buttons ▽ and △ simultaneously to set the tracking at the center position.
(If adjustment is made after the drum is replaced, the tracking must be set at the max. Rf output position.)
2) Height adjuster screw: Even out the RF output waveforms.
3) Press the tracking buttons (playback), ▽ and △ alternately.
4) Check that RF output drops the same amount at the front and rear edges.

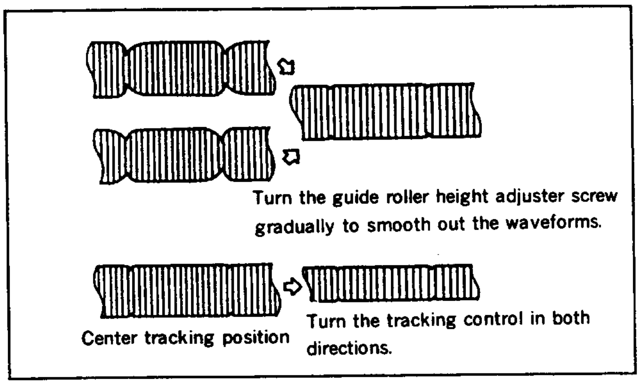

Turn the guide roller height adjuster screw gradually to smooth out the waveforms.
Center tracking position
Turn the tracking control in both directions.

Fig. 4-4.

4-1-5. ACE head ass'y adjustment (rough adjustment) (Figs. 4-5 and 4-6)

Purpose : Allows the tape to make even contact with t head for recording and playback of the specifi track.

Mode	Playback
Tool	Blank tape
Adjustment locations	Height adjuster nut, tilt adjuster screw

[Adjustment method]

1) Mount the ACE head ass'y. At this time, adjust the heig so that the height of guide flange No. 7 matches the le of the lower edge of the control head.
2) Remove the adjustment tool and load a new tape, then the unit for playback.
3) Check that the tape does not curl or raise up noticeal near the ACE head.
4) If the yape curls up or rarises noticeably, readjust the adjuster screw, the azimuth adjuster screw and the heig adjuster nut.
(The height of the ACE head should be adjusted so th the lower edge of the tape is approx. 0.1 to 0.15 mm fr the control head.)
5) Perform precision adjustment.

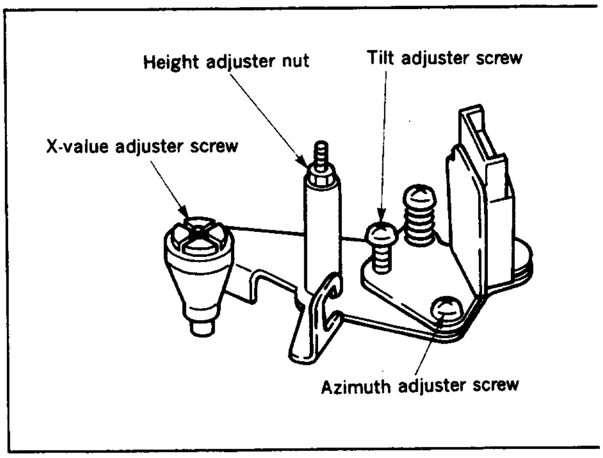

Height adjuster nut
Tilt adjuster screw
X-value adjuster screw
Azimuth adjuster screw

Fig. 4-5.

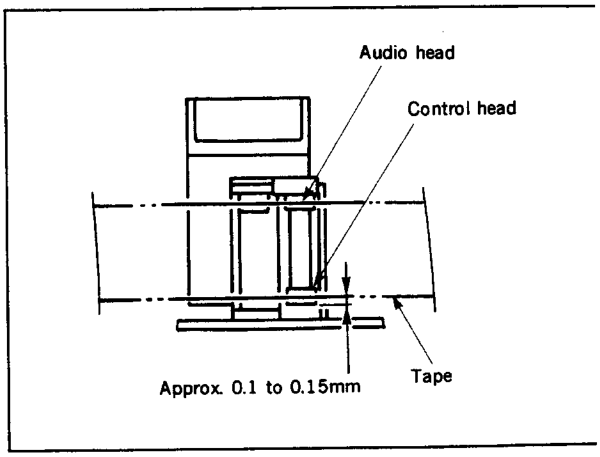

Audio head
Control head
Approx. 0.1 to 0.15mm
Tape

Fig. 4-6.

4-1-6. ACE head assembly adjustment (precision adjustment)

Mode	Playback
Signal	Alignment tape (JVC-MH-1 1KHz)
Measuring instrument	Oscilloscope
Measuring point	Audio output terminal
Adjustment locations	Azimuth adjuster screw Height adjuster nut Tilt adjuster screw

[Adjustment method]

1) Adjust the tilt adjuster screw in the FWD or REV mode so that the lower flange of guide No. 7 does not curl up or raise.
2) Alternately adjust the azimuth adjuster screw, the height adjuster nut, and the tilt adjuster screw to maintain even audio output at maximum with minimum deviation.

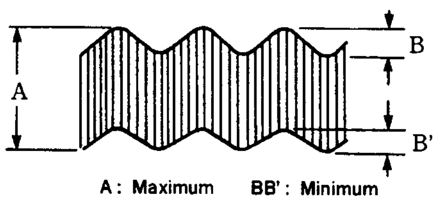

A
B
B'
A: Maximum BB': Minimum

Fig. 4-7.

4-1-7. X-value adjustment

Purpose: To obtain compatibility with other VTR.

Precaution: Be sure to perform the preset tracking adjustment before perform this adjustment. (Refer to the Service Guide.)
Turn off the auto tracking and set the VTR for manual tracking mode.

Mode	Playbadk
Signal	Hi-Fi alignment tape (Hi-Fi 400Hz), alignment tape (JVC-MH-1)
Measuring instrument	Oscilloscope
Measuring point	CH-1: Connector PB RF pin for RF PC board check. CH-2: Connector RF SW P pin for RF PC board check. (Check with the CHA head)
Adjustment locations	X-value adjuster screw

[Adjustment method]

- **Adjustment by Hi-Fi alignment tape**

  When the tracking is set at the center position (by pressing the ▽ and △ keys simultaneously), adjust the RF output to maximum.

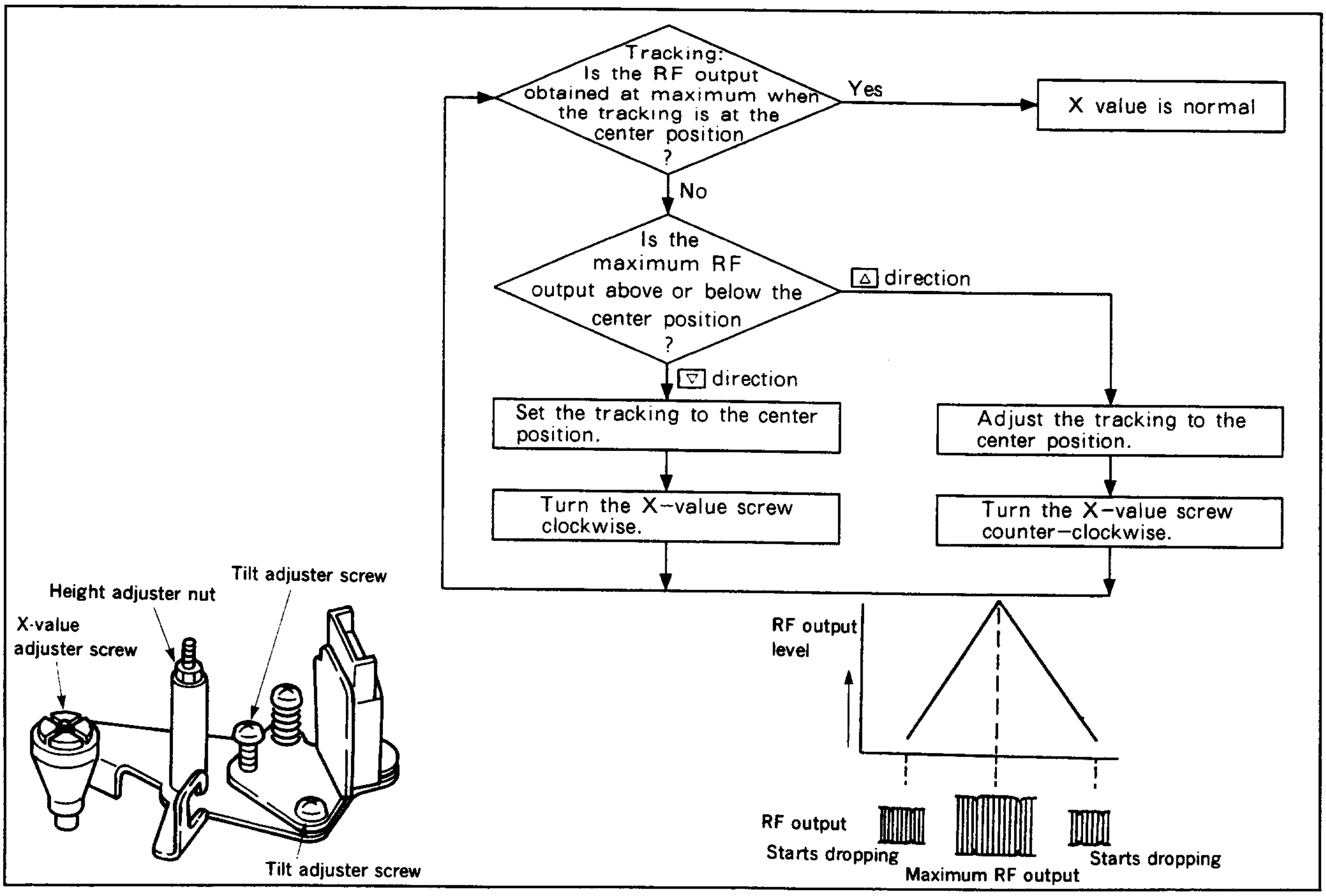

Tracking: Is the RF output obtained at maximum when the tracking is at the center position ?
Yes
X value is normal
No
Is the maximum RF output above or below the center position ?
△ direction
▽ direction
Set the tracking to the center position.
Turn the X-value screw clockwise.
Adjust the tracking to the center position.
Turn the X-value screw counter-clockwise.
Tilt adjuster screw
Height adjuster nut
X-value adjuster screw
Tilt adjuster screw
RF output level
RF output
Starts dropping
Maximum RF output
Starts dropping

Fig. 4-8.

- **Adjustment by Alignment tape (JVC-MH-1)**
  Adjust the X-value adjuster screw so that maximum RF output is obtained and also that the RF output drops the same position on pressing the respective ▽ and
buttons while the tracking is set at the center positio

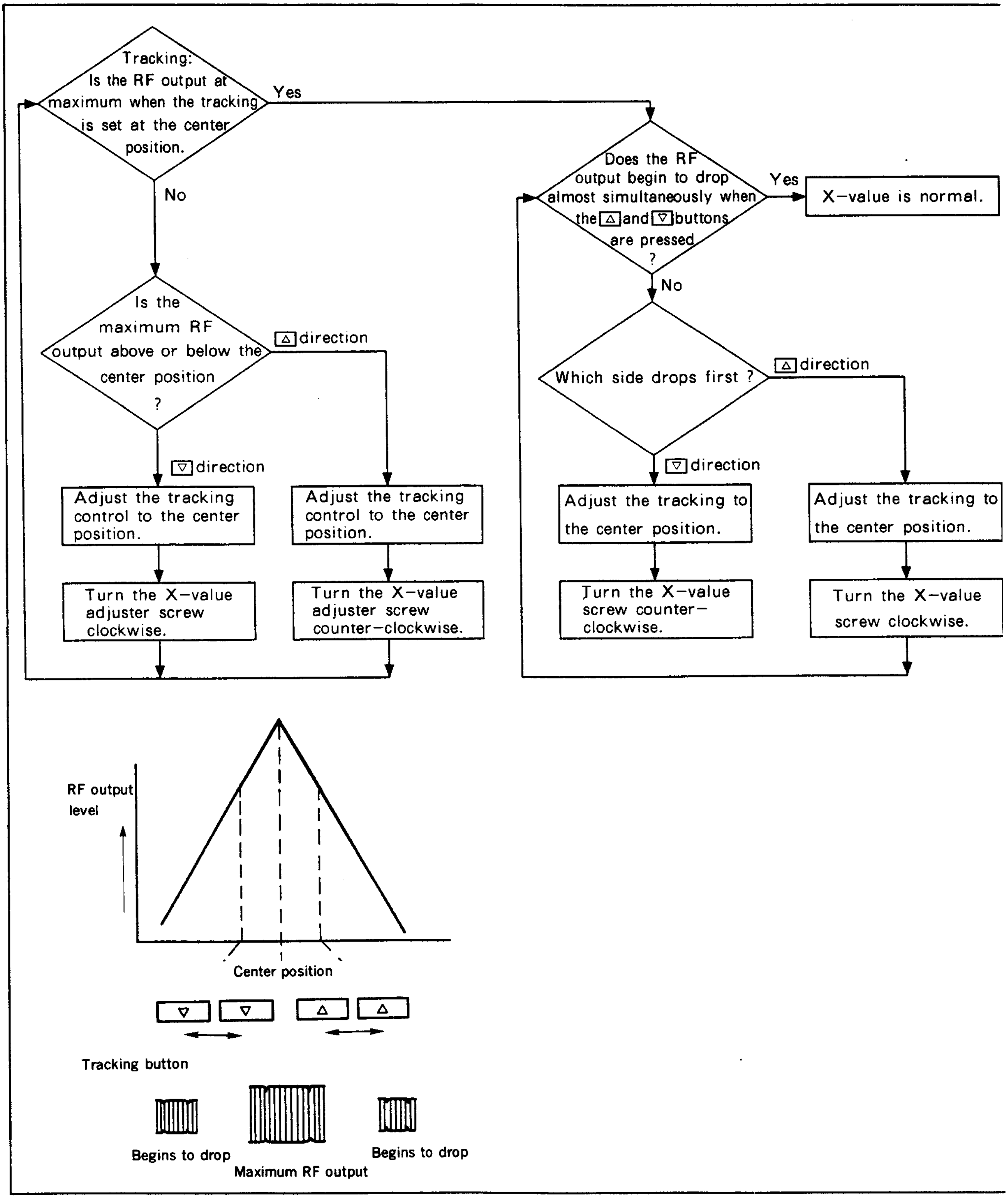

Tracking: Is the RF output at maximum when the tracking is set at the center position.
Yes
No
Is the maximum RF output above or below the center position ?
△ direction
▽ direction
Adjust the tracking control to the center position.
Adjust the tracking control to the center position.
Turn the X-value adjuster screw clockwise.
Turn the X-value adjuster screw counter-clockwise.
Does the RF output begin to drop almost simultaneously when the △ and ▽ buttons are pressed ?
Yes
X-value is normal.
No
Which side drops first ?
△ direction
▽ direction
Adjust the tracking to the center position.
Adjust the tracking to the center position.
Turn the X-value screw counter-clockwise.
Turn the X-value screw clockwise.
RF output level
Center position
▽
▽
△
△
Tracking button
Begins to drop
Maximum RF output
Begins to drop

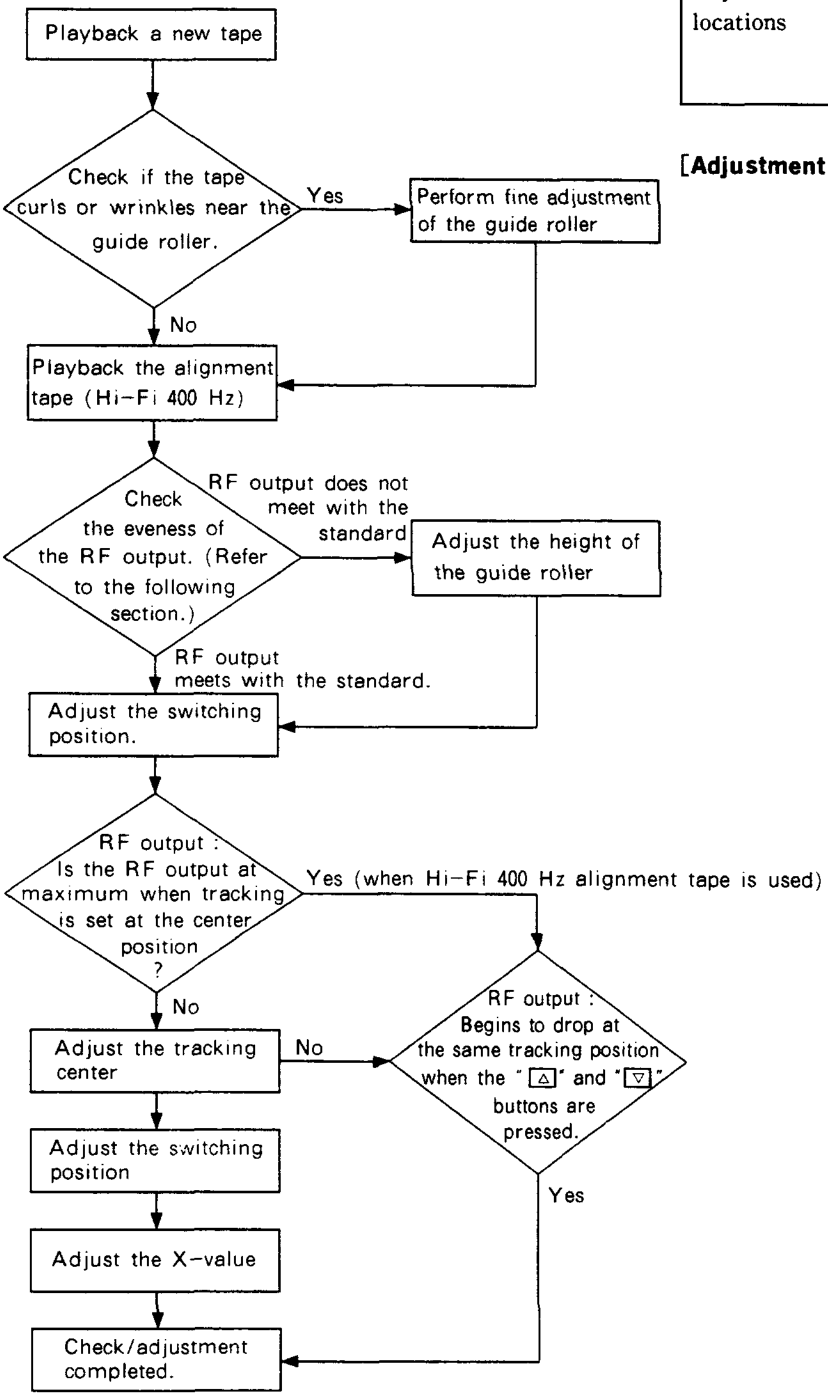
Fig. 4-9.

4-1-8. Adjustments after replacing the drum (video head)

Purpose : Co-relative height, X-value and other factors of the drum will deviate from those of the guide roller. If the drum is replaced properly, these deviations are extremely small.

Precaution : Turn off the auto tracking and set the manual tracking mode.

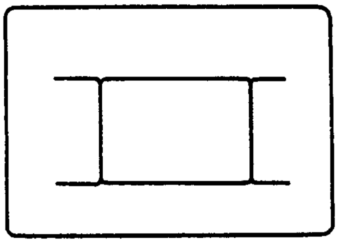
Mode	Playback
Signal	Alignment tape (JVC-MH-1), blank tape
Measuring instrument	Oscilloscope
Measuring point	CH-1 : Connector PB RF pin for RF PC board check. CH-2 : Connector RF SW P pin for RF PC board check.
Adjustment locations	Guide roller (refer to 4-1-5.) Switching position, Tracking preset, SP delay mono-multi, X-value (refer to 4-1-8) } (Refer to the Service Guide)


Playback a new tape
Check if the tape curls or wrinkles near the guide roller.
Yes
Perform fine adjustment of the guide roller
No
Playback the alignment tape (Hi-Fi 400 Hz)
Check the eveness of the RF output. (Refer to the following section.)
RF output does not meet with the standard
Adjust the height of the guide roller
RF output meets with the standard.
Adjust the switching position.
RF output : Is the RF output at maximum when tracking is set at the center position ?
Yes (when Hi-Fi 400 Hz alignment tape is used)
No
Adjust the tracking center
No
RF output : Begins to drop at the same tracking position when the "△" and "▽" buttons are pressed.
Yes
Adjust the switching position
Adjust the X-value
Check/adjustment completed.

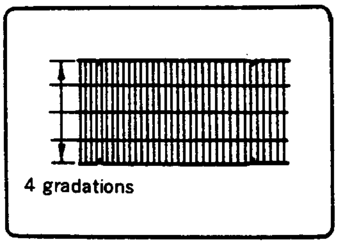
[Adjustment method]

[Checking the eveness and fluctuation of the RF output]

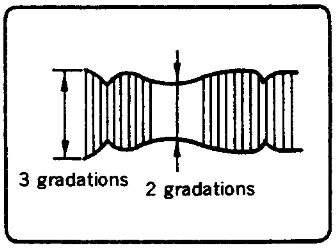
1) Set the RF output to the maximum level using the tracking buttons.



2) Perform fine adjustment of the voltage level range of the oscilloscope, then adjust the RF output deviation to within 4 gradations.



3) Press the tracking buttons and adjust the maximum amplitude of the RF output to within 3 gradations.
4) At this time, check if the minimum amplitude is more than 2 gradations.



5) Check that the RF output fluctuation between minimum and maximum levels is within 13%.

4-1-9. Checking the tension and torque

Purpose: To check that the tension, torque and compression force of the tape take-up section and mobile sections to ensure smooth tape run and achieve standard VTR performance.
If the tape transport is not smooth or problems occur in relation to the tape transport speed, perform the following check.

Mode	Each operation mode without loading a cassette tape. (Refer to section 1-3.)
Measuring instrument	Torque gauge, Torque gauge adapter

Item	VTR operation mode	Reel to be measured	Measurement value
Main brake torque	Stop	Supply and take-up reels	170g•cm or more
Review torque	Review	Supply reel	180±30g•cm (using the torque cassette)
Take-up torque	Playback	Take-up reel	80 to 140g•cm (using torque cassette)
Back tension torque	Rewind	Take-up reel	4 to 25 g•cm

[Check method]

Measure the torque using the torque gauge and torque gauge adaptor with the torque gauge fixed.

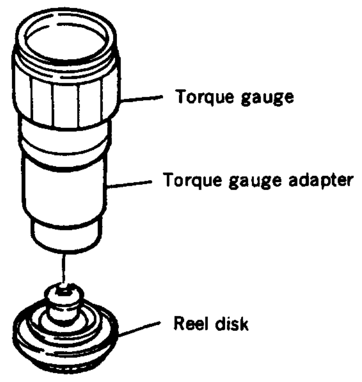


Fig. 4-13.